

ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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JUNE 1956

No 6

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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CONTENTS

June, 1956

Editorial	183	The Experiences of a Raw Surgeon-Lieutenant by Surg.-Lt. R. J. Knight	207
Notes and News	184	A Visit to Hill End as a Patient by E. M. B.	210
Notices	190	Natural History Society	211
Announcements	190	The Life of Saint Bartholomew, Part III by J. B. Dawson	212
Calendar	190	The General Practitioner and his Patient	215
Mr. Alan Seymour Philips: an Obituary by Rupert Scott	191	Hospital Appointments	216
The Relevance of Leprosy to Modern Day Concepts of Medicine by R. G. Cochrane	192	Examination Results and Awards	216
The Mayo Clinic by Ian P. Todd	197	Recent Papers by Bart's Men	217
William Harvey: Two Medical Anecdotes, by Richard A. Hunter and Ida Macalpine	200	Sports News	219
		Record Reviews	220
		Book Reviews	221

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Intelligently used, vaginal tampons represent a decided advance in feminine hygiene. They may be recommended with confidence.

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| 3. <i>J. Amer. Med. Assoc.</i> , 1943; 123, 490. | 4. <i>West. J. Surg., Obstet., Gynec.</i> , 1943; 11, 108. |
| 5. <i>Amer. J. Obstet. Gynec.</i> , 1943; 46, 219. | 6. <i>Clin. Med. Surg.</i> , 1943; 46, 337. |



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[†]Swartout, R., III, and Gunther, K.: "Dizziness": Vertigo and Syncope, G.P. 8:35 (Nov.) 1953.



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Med. Press 233:485, 1955

Septic Abortion

May, 1955

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Brit. med. J. 2:1239, 1955

Staphylococcal Empyema

July, 1955

12 of 13 cases of penicillin-resistant staphylococcal pneumonia in infants and children, complicated by lung abscess and empyema, responded dramatically to Chloromycetin—"the most effective drug". Chloromycetin was indicated by *in vitro* sensitivity tests in all cases in this series.

Canad. M.A.J. 73:787, 1955

Acute Pyelonephritis in the Diabetic

September, 1955

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Canad. M.A.J. 73:956, 1955

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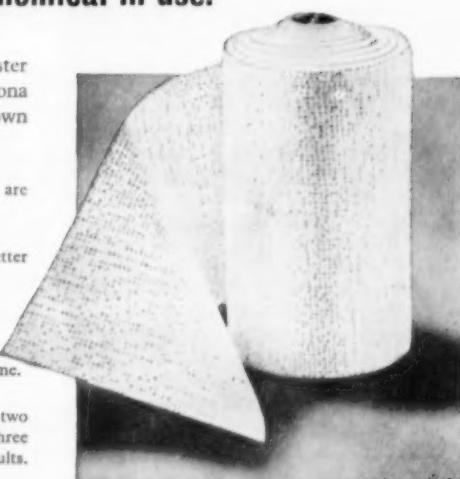
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EDITORIAL

Examinations are formidable even to the best prepared, for the greatest fool may ask more than the wisest man can answer.

—Charles Caleb Colton.

IN A LONDON medical school, which teaches students from Oxford and Cambridge as well as those belonging to London University, there is hardly a month of the year in which examinations of some sort are not being taken. These activities reach a climax in the Spring and the early Summer, when the First and Second M.B., the Oxford, Cambridge and London University Finals, the Conjoint Board and the Society of Apothecaries' examinations are held. In each case they take the traditional form of practical and oral tests, and written examinations.

There is no doubt that essay questions explore a considerable number of accomplishments as well as the factual knowledge of the candidate; for example, his ability to argue logically and express himself clearly, his handwriting, spelling and punctuation. They are, however, not entirely satisfactory, for, since no more than five or six questions are asked, only a small sample of the student's total knowledge is taken; as a result, there is an element of luck, for the candidate may or may not be asked a question he can answer. The system is also liable to inaccuracy, for the papers have to be marked and assessed by the examiner, whose verdict may be influenced by his own idiosyncrasy.

It was in an attempt to overcome these objections that the American National Board of Examiners, in 1954, adopted the objective form of examination, which consists of a large number of multiple choice questions. Each of these presents a specific situation with five possible answers, only one

of which is correct. The student marks his chosen answer and is graded according to the number of questions he marks correctly. As many questions can be answered in a limited time, a very wide range of the student's knowledge can be sampled in three hours; the papers are assessed by machine, so it can be done rapidly, accurately and impartially; and the student is not handicapped by his bad writing, or by his inability to express himself.

It is claimed that these multiple choice questions are far more searching than the essay type, as 'they enable the examiner to test not only the candidate's knowledge, but also the subtler qualities of discrimination, judgment and reasoning. Certain types of question test the student's recognition of the similarity or dissimilarity of diseases, drugs, physiologic and pathologic processes. Other questions evaluate the candidate's judgment as to cause and effect, or lack of causal relationship. Case histories are used to simulate the experience of a physician confronted with a diagnostic problem, and a series of questions can then determine the candidate's understanding of related aspects of the case, such as associated laboratory findings, treatment, complications and prognosis.'

The objective type of examination is, however, not without its drawbacks. It deals largely with isolated facts and the candidate is liable to attempt guessing the answer. But, perhaps the greatest objection levelled against it, is the claim that the student may lose the power of expressing his ideas on paper. This can be appreciated when it is realized that

in those American medical schools where this form of examination alone is used, it is possible for a student to qualify without having taken a single written examination.

The perfect type of examination has yet to be developed, for both the objective and written forms have serious shortcomings. It will, however, be interesting to see if, in the next few years, the popularity of the new type of examination will continue, and if any attempt will be made to introduce it into this country.

Congratulations

to Dr. E. B. Strauss on his election as President of the British Psychological Society for 1956-57.

to Mr. Naunton Morgan on his appointment as Consulting Civilian Surgeon to the Royal Air Force. Mr. Naunton Morgan is already Consulting Surgeon (Proctology) to the Royal Navy, and Consulting Surgeon to the Army, in which he served during the war.

to Mr. D. F. Ellison Nash on his appointment as Sub-Dean of the Medical College. He succeeds Mr. J. W. Cope, who has held the position since October, 1952.

to Dr. C. F. Harris on his re-election as Deputy Vice-Chancellor of the University of London for 1956-57.



Abernethian Society

The following gentlemen have been elected to hold office for the Session, July to December.

President : C. B. S. Wood

Secretary : C. F. Allenby

Treasurer : L. J. Farrow

*Committee : L. J. Chalstrey, J. Parker,
N. C. Roles, M. E. Woolrych*

In the coming session we hope that the new officers will be able to stimulate the

present generation of students into showing more enthusiasm for the Society and its activities.



Charterhouse

At the end of April, the high boundary wall separating the Medical College grounds at Charterhouse Square from Charterhouse, was knocked down and replaced by a low wall and a post and chain railing. These posts have been taken from one of the courts of Charterhouse, Pensioner's Court, which was built in the 1820s, Blower being the architect. It is therefore believed that these posts are about 130 years old.

The land between the wall and the Charterhouse buildings was at one time part of the Monk's Garden, and it is intended to lay out a garden, once more, on this site.

The removal of the wall has been a great improvement, and we look forward to the time when the garden is in full bloom.

William Harvey

On June 3, next year, the world of science and medicine will celebrate the tercentenary of the death of William Harvey, physician to this Hospital from 1609 to 1643. New aspects of his scientific contributions continue to be discovered as each age examines them afresh in the light of contemporary advances. Yet, despite the voluminous literature that has accumulated, comparatively little is known of Harvey as a physician or of his personal life. It is therefore a great occasion when anything new is discovered, for contemporary references are sparse and only rarely can new material be found.

In this issue we are fortunate in being able to publish two interesting anecdotes from his medical practice which seem to have escaped the notice of his biographers: they concern a neurological and a psychiatric

patient. On the basis of these cases, the authors, as psychiatrists, briefly survey Harvey's writings for further neurological and psychiatric material. They show that Harvey's observations in these branches of medicine also were in advance of his time, and thus reveal new facets of his many-sided genius.

Statuette of Rahere

The silver statuette of Rahere, which was presented by the Medical Staff to Mr. Thomas Hayes when he retired from the office of Clerk to the Governors in 1937, has now become Medical College property. Mr. Hayes, who died in November of last year, bequeathed it to the Medical College.

The statuette is to be placed in the Library.



Elected Travelling Fellow

The Royal College of Surgeons has appointed Professor Sir James Paterson Ross as Sir Arthur Sims Commonwealth Travelling Professor for 1957.

It is expected that the Professor will visit Australia and New Zealand.

Distinguished Visitors

During May, two American professors visited the Hospital and became members of the Staff for a short time.

Dr. Howard Means, formerly Professor of Medicine at Harvard University, was temporary Director of the Medical Unit for the whole month, and Dr. F. A. Simeone, Professor of Surgery in Western Reserve University, Cleveland, Ohio, was temporary Director of the Surgical Professorial Unit for the first two weeks.

Both Professors were elected Perpetual Students of the Medical College and pre-

sented with the two volumes of *The History of St. Bartholomew's Hospital* by Norman Moore.

Cambridge Graduates' Medical Club

The Annual General Meeting and Dinner will be held at Queen's College on Friday, June 22, 1956. Will members of the Club who have not received the official notice, or any other Cambridge man who would like to join the Club, please communicate with the Hospital Representative, Mr. John Cope.

11th Decennial Club

The twenty-first Annual Dinner of the 11th Decennial Club was held on Friday, April 27, with Mr. C. K. Vartan in the Chair.

Unfortunately only forty-seven members were present, the lowest attendance ever. This was partly due to the fact that the Dinner of the Association of Surgeons, which was held on the same evening, drew off most of the surgical regulars. In spite of the small numbers it was a most friendly and enjoyable evening, with Mr. Vartan's reminiscences of some of his old chiefs and members of the nursing staff being greatly appreciated. Dr. G. S. Little proposed the health of the Chairman.

Although the secretaries sent out 444 notices they received only 200 replies. Whether this was due to members of the Club failing to notify their changes of address or just their tardiness in replying is unknown; whatever the cause we hope that it will be remedied in the future.

Next year, the Annual Dinner will be held on Friday, May 10, when Dr. Arnold Barnsley has promised to take the Chair.



Frock-coats

In our January issue of this year, we published an extract from *The Memoirs of Sir Charles Gordon-Watson*, and in it reference

was made to the fact that frock-coats were, at one time, worn by surgeons when performing operations at this Hospital. The relevant paragraph reads:

There were two general operating theatres, a theatre on the gynaecological floor, a small one in Coborn Ward for septic cases, and one in the Ophthalmic Ward. The Old Theatre in the Abernethy Block had seats in tiers to hold about 150 students. The table was made of wood, with thick leather-covered cushions; the head could be raised, but not the other end. There was a cupboard near the door, beneath the arena, where the surgeons kept their blood-stained frock-coats into which they changed to operate.

As it stands, this could mean that the frock-coats were still there when Sir Charles Gordon-Watson first came to the Hospital in May 1893. However, on looking at the original manuscript again, we find that the sentence: 'They [referring to the frock-coats] were abolished just before my time' appears at the end of this paragraph. Evidently, in transcribing the passage this most important sentence was inadvertently omitted. The Editor wishes to apologize for this omission.

Théâtre National Populaire

From our Special Correspondent.

It is the life-long ambition of many actors to appear on the stage of a West End theatre, but seldom is it made possible by attending a medical school. When the Théâtre National Populaire from Paris arrived in London for a three weeks season, the producer required a number of extras for walking-on parts, and by a shrewd move Brian Pidcock, our erstwhile impresario, secured the contract.

A notice duly appeared in the gentlemen's cloakroom requesting applications for 'large lords, stalwart soldiers and medium-sized monks' to star in *Marie Tudor* (pay, 11/5½ per performance!). Whether it was the prospect of footlight fame or the desire to lighten the financial burden is not quite clear, but there was no shortage of applicants.

The day before the first performance a quick rehearsal for the enthusiastic extras was held by the Stage Manager in French. This tested the majority's familiarity with the language to the utmost, but with the help of some wild and expressive gesticulations, understanding was eventually reached.

The first performance was due to start at 7.45 p.m., and at 7.30 the loud-speaker system in the dressing-rooms announced:

'Le spectacle commence dans quinze minutes', followed by a hesitating translation for the benefit of the ignorant English.

The four non-speaking lords, Badley, Newton, Galbraith and Mike Pidcock, were regaled in tights, false beards and shoes several sizes too small. Friars Nicholson, Hall and Lewis were clothed in black and white habits, and carried wooden candles illuminated by 20th century torch batteries. Pigott was chief walker-on and stand-in and performed well in his various roles. Captain Tidmarsh and Private Cocker formed the palace guard, and standard-bearers Costley and Brian Pidcock completed the distinguished Bart's company of extras.

The six performances of *Marie Tudor* were played to packed audiences, for the T.N.P. is one of the best companies in France and many French-speaking Londoners gladly took the opportunity of seeing some fine acting, the performance of Maria Casarès being particularly noteworthy. Jean Vilas, the producer, expressed his appreciation of the acting of his 'tenebres Anglais', and one hopes that future Bart's students will be given the opportunity of acting with this company should they come to London again.

Nurses' Pay

The Ministry of Health issued the following statement on April 10, 1956.

'The Nurses and Midwives Whitley Council today agreed upon increases in the pay of all hospital nursing staff, ranging from



£20 for student nurses to £95 for the matrons of the largest hospitals. Staff nurses will receive an increase of £30 at the minimum and £35 at the maximum ends of the scale. Ward sisters will receive £35 and £40 respectively.'

After mentioning the status of mental nurses, the statement continued: 'Other improvements include shorter salary scales and bigger increments.' The increases in

salary will come into force as from April 1, 1956.

We asked several nurses in this hospital to give their views on these awards. All were glad that there was in fact any increase at all. The probationers appeared more enthusiastic than their seniors, but almost all were disappointed in the amount awarded. Blue belts would have been happy with the amount if there had not been a further de-



duction for income tax, and increased charges for food and board. Apparently, whenever there has been a rise in pay, the hospital authorities have appropriated a considerable proportion to offset the living charges. All, however, agreed that they were well looked after.

The sisters raised another point. Their spokesman suggested that there should still be a much greater award for responsibility, and therefore a bigger gulf between the salary of the nurse in training and that of trained staff. She added that if it was desirous to keep experienced women as ward sisters their salary should at least be equal to that of junior administrators. At present, a ward sister of twenty years standing receives the same salary as her much more junior colleague, because the maximum rate is reached at a relatively early age.

While any increase in nurses' and sisters' pay is welcome, the position is still far from satisfactory, for the sums awarded do not make their salaries sufficient reward for their arduous duties.

Westward Bound

One of the medical teaching centres in the American Continent frequently visited by Bart's men is the University of Michigan. Mr. R. S. Corbett recently gave a description (*St. B.H.J.*, March, 1956) of his return visit to Ann Arbor.

This summer, Dr. R. C. King and Mr. T. B. Boulton are crossing the Atlantic to

spend a year there. Dr. King has been awarded a Fellowship by the American Cancer Society; he will be attached to the Department of Internal Medicine, where his chief will be Dr. Marvin H. Pollard, who is the secretary of the American Gastro-Enterological Society.

Mr. Boulton has an appointment as Research Associate and Instructor in the Department of Anaesthiology under Dr. Robert B. Sweet, the Director of the Department. He hopes to work on the problem of post-operative vomiting.

Both Dr. King and Mr. Boulton will be accompanied by their families, and it is rumoured that baby-sitting rotas are already being drawn up.

Russian Surgeons

On Tuesday, April 17, three Russian Surgeons, the guests in this country of the Royal College of Surgeons, visited the Hospital at the invitation of Professor Sir James Paterson Ross. The party consisted of Professor P. A. Kupriyanov, President of the Scientific Association of Surgeons and Principal of Surgery at the Kirov Military Academy at Leningrad; Professor A. G. Savinov, Principal of Surgery at Tomsk Medical Institute; Dr. D. D. Benedikov, Director of the Surgical Clinic of the Second Moscow Medical Institute; and Dr. Duddington from the Middlesex Hospital, who was acting as interpreter. The occasion proved to be truly international when two American Surgeons and an Australian joined the group.

In the morning the visitors watched an aortic graft operation performed by Mr. G. W. Taylor. Up to the present time only homografts have been used in the U.S.S.R., but they are now beginning to use polyvinyl sponge grafts.

After lunch, a brief tour of the Hospital was conducted by Professor Ross. The Square, the Fountain and the Hogarth murals on the staircase to the Great Hall were admired, and in the Great Hall the portraits of famous old Bart's men were examined and their names recognized. It was in the Hall that Dr. Benedikov, who speaks excellent English, gave an impromptu 'press conference'.

We learnt that the first medical college to be founded in Russia was the Medical Faculty of Moscow University in 1755. As in other European countries the teaching of Medicine gradually spread to other univer-

sities, and by this century most of the Russian Universities possessed a Medical Faculty. The medical teaching staff so outnumbered their non-medical colleagues that it was thought advisable to dissociate medical teaching from the universities. In 1935 this was done, and Medical Institutes were set up in the larger cities with separate Institutes for the Army and Navy.

These Institutes are subdivided into the Faculties of Sanitation and Hygiene; Paediatrics; and General Medicine. The annual intake is 1,500 at the Moscow Institute and about 800 at the smaller Institutes.

The curriculum does not differ greatly from that in England; the total course of study lasts six years, the first two years being devoted to pre-clinical subjects and the remaining four to clinical work. The students indulge in many sports and great rivalry exists between Institutes. Unlike their more reticent English counterparts, the Russian medical students are prolific producers of journals, newspapers and broadsheets. The Moscow Institute, for instance, has a daily newspaper produced by students, several journals and even weekly typescripts produced by individual firms. This multitude of publications gives people the opportunity of knowing what is going on throughout the Institute.

12th General Hospital R.A.M.C./A.E.R.

Our Military Correspondent writes:

On April 28, Colonel G. T. Hankey, O.B.E., T.D., relinquished active command of the 12th General Hospital.

After a distinguished career, both in the Territorial Army prior to 1939 and with the Colours during the last war, Colonel Hankey was entrusted with the task of raising the 12th General Hospital as a unit of the Army Emergency Reserve. He wisely turned to the Mother Hospital as a potential source of volunteers, and at the present time eight Bart's men and one patient are serving with the unit. In addition to the Colonel these officers are: Lt.-Col. Charles Manning, Majors H. Lehmann, Ian Todd, George du Boulay, Ronnie King, Tom Boulton, Capt. J. Caplin and Capt. R. Bowman, the Q.M. (in a plaster jacket).

This year the camp was held under canvas from April 21 to May 5, at Mytchett, in Surrey. During the fortnight, Colonel Hankey was entertained by his officers both

in the mess and at the Bush Hotel, Farnham. He was presented with a silver salver by his successor, Colonel H. K. Meller, M.B.E., T.D., and the volunteer officers. It is hoped that Her Majesty the Queen will be graciously pleased to approve the appointment of Colonel Hankey as Honorary Colonel of the Hospital, thereby ensuring his continued association with the unit.

The existence of this unit may be of interest to Bart's men and women. There are vacancies in various departments (including the Q.A.R.A.N.C.) and it is hoped that National Service M.O.s will state a preference for the 12th General Hospital for their reserve training.

View Day, 1956

At exactly 2-o'clock on View Day, the procession of Head Porter, Treasurer, Matron, Steward and Governors left the Square to begin their journey round the Hospital. First to the Surgery where the Nursing Staff was drawn up in a seemingly endless single line,



. . . 'caught unawares' . . .
Drs. G. W. Hayward and A. W. Spence.

next to the Dispensary, then across to the wards in the East Wing, and finally they disappeared into the King George V Block.

For the second year running, it was decreed that 'tail coats need not be worn', and we noticed with some regret that the number of morning suits was even less than last year. But, with or without their tail coats, the members of the Consulting Staff were to be seen relaxing in the Square and our Candid Cameramen did their best to take



About to take . . . 'evasive action' . . .
Drs. K. O. Black and E. B. Strauss.

advantage of this golden opportunity. Encouraged by the *Journal* Staff, they stealthily stalked their prey, attempting to approach from the blind side or ambush them from behind a group of people. Some were caught unawares; others unconcernedly stood their ground; but there were also those who took evasive action by either smartly turning their backs or suddenly walking away in the opposite direction. Evidently they were shy.

Meanwhile the energetic toured the various exhibitions specially arranged for the day. The display of Hospital Archives and Mediaeval Deeds in the Great Hall, which



. . . 'unconcernedly stood their ground' . . .
The Warden (Mr. G. Ellis) and the Dean
(Mr. E. G. Tuckwell).

disclosed some interesting facts about the Sewage, Drainage and Water Supply Systems of the Hospital as they were many years ago; the Herbals and Prints, and the Natural History Society's Exhibition in the Library; and the grisly specimens in the Museum. Here also was the smoking machine, which was enviously watched by the addicted as it effortlessly consumed cigarette after cigarette. In the Statistics Department visitors were enthusiastically received and introduced to the intricacies of the Hollerith Mechanical Card-sorting System; the Dispensary, where the preparation of pills was open to inspection; and the Fifth Floor of the Medical Block, where we were once more reminded of the horrors of Smog.

Unfortunately the weather was not as good as has come to be expected on View Day, and as the Procession at last finished its tour and emerged from the colostomy it began to rain. This caused the exit from the Square to be even more precipitate than usual as visitors hurriedly made their way to the wards for tea.

NOTICES

Lectures on General Practice
Wednesday, June 20, at 12 noon.

Dr. G. Keith H. Hodgkin of Redcar, Yorks, will give the next lecture in this series in the Hospital Lecture Theatre.

ANNOUNCEMENTS

Births

BEALE.—On April 30, at the Eastern General Hospital, Leith, to Ruth (*née* Clark) and Dr. I. R. Beale, a second son (David).

BRADY.—On April 17, to Margaret (*née* Ambrose) and Dr. Thomas Brady, the Bridge House, Aldham, Essex, a daughter (Alice).

CLARKE.—On April 27, at Trowbridge Hospital, to Barbara (*née* Clilverd) and Dr. L. W. Clarke, twins (Christopher and Camilla).

COOK.—On April 21, at Oldham and District General Hospital, to Rita (*née* Adamson) and Dr. A. B. Cook, M.B.E., a daughter (Gillian Mary).

EVANS.—On April 23, at Carmarthen, to Hazel and Dr. W. Burnett Evans, a son (St. John).

HACKING.—On March 26, at Sussex Maternity Hospital, Brighton, to Betty (*née* Dusart) and Dr. S. Hacking, a brother for Elizabeth Ann (Robert Stanley).

MORRISON.—On April 4, to Norma (*née* Nicholson) and Lt.-Col. R. J. G. Morrison, R.A.M.C., a son (Simon John).

OSTLERE.—On April 19, at King's College Hospital, to Mary (*née* Palten) and Gordon Ostlere, a son.

Engagements

SIMMONS—HOUGHTON. The engagement is announced between Dr. Peter Hamilton Simmons and Miss Elizabeth C. Houghton.

BUCHANAN—DUFF. The engagement is announced between Mr. Robert Laird Buchanan and Miss Maureen Duff.

Marriage

GRANDAGE—BARSHALL. On April 7, at St. George's Church, Hanover Square, Dr. Christopher Landale Grandage to Miss Sybil Barshall.

Deaths

COLLINS.—On April 29, at Frinton-on-Sea, George Fletcher Collins, M.R.C.S., L.R.C.P., D.P.H., in his 95th year. Qualified in 1885.

PRATT.—On March 15, Dr. J. S. Pratt, of 130, Harley Street. Qualified 1938.

SKEGGS.—On April 3, Basil Lyndon Skeggs, M.R.C.S., L.R.C.P., of Stevenage, aged 63. Qualified 1917.

TOMS.—On April 17, Humphrey W. Toms, M.R.C.S., L.R.C.P., of Leigh-on-Sea. Qualified 1918.

CALENDAR

Sat.	June 2	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Tennis; Mixed Doubles Tournament.
Sun.	3	Cricket v. Queens' Coll. Camb. (H).
Mon.	4	Bumping Races at Kew.
Tues.	5	Bumping Races at Kew.
Wed.	6	Bumping Races at Kew.
Sat.	9	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. Middlesex Hosp. (H). Tennis: v. Imperial Coll. (H).
Sun.	10	Cricket: v. Riddels Rovers. (H).
Sat.	16	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty.

Sports Day

Sun.	.. 17	Tennis: v. West Heath. (H). Cricket: v. Horlick's C.C. (H). Tennis: Middlesex Hosp., mixed match. (A).
Wed.	.. 20	Tennis: v. Northants Engin. Coll. (H).
Sat.	.. 23	Medical and Surgical Professorial Units on duty. Marlow Regatta. Cricket: v. Royal Dental & Charing Cross Hosps. (H).
Sun.	.. 24	Cricket: v. Hornsey. (H).
Sat.	.. 30	Dr. G. Bourne and Mr. J. B. Hume on duty. Cricket: v. Jesters. (H). Tennis: v. Stoneyhurst Wanderers. (H).
Sun.	July 1	Cricket: v. Old Roans. (H).
Wed.	.. 4	Henley Royal Regatta begins.
Sat.	.. 7	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. Hornsey. (A).

ALAN SEYMOUR PHILPS

THE death of Seymour Philps at the age of 50 is a very sad loss not only to the hospital but also to Ophthalmology for he was establishing a world-wide reputation.

Born in 1906, the son of Mr. Francis John Philps former editor of the *Financial Times*, he died on April 26. Educated at Aldenham School, he entered St. Bartholomew's in 1924, qualifying in 1929.

He was house surgeon to Professor George Gask and Sir Thomas Dunhill, and in 1931 obtained the F.R.C.S. degree.



His ophthalmological career began in 1936 when he became House Surgeon to the Royal Westminster Ophthalmic Hospital. Other junior appointments followed including that of Chief Assistant to the Eye Department of St. Bartholomew's. In 1938 Seymour Philps was elected Assistant Surgeon to the Royal Westminster Ophthalmic Hospital and full Surgeon in 1944.

Other posts held were those of Ophthalmic Surgeon to the Victoria Hospital for Children and the Miller General Hospital.

During the early years of the war he served with the Emergency Medical Service and was stationed at Hill End Hospital. In 1942 he joined the R.A.M.C. and after holding important posts in this country he took part in the Normandy landing and the advance into Belgium.

On his return to England Mr. Philps became Ophthalmic adviser to Millbank Hospital with the rank of Lieutenant-Colonel.

Demobilised in 1946 he resumed his hospital and consultant duties.

In 1947, Seymour Philps was elected Assistant Ophthalmic Surgeon to St. Bartholomew's and in 1948 Surgeon in Charge of the Eye Department.

With the inception of the National Health Service in 1948 he became Consultant Ophthalmic Surgeon to the Mid-Herts group of hospitals and secretary of the Advisory Committee of the N.E. Metropolitan Regional Hospital Board.

In 1951 he was appointed by London University a teacher of Ophthalmology at the Institute of Ophthalmology and at St. Bartholomew's Medical School.

He was a brilliant surgeon and interested in all branches of his work, a wise clinician and an inspiring teacher.

In addition to writing many papers on ophthalmological matters to the medical press Mr. Philps was the author of *Ophthalmic Operations* (1950), a book richly illustrated with his own exquisite drawings. He was an excellent draughtsman.

In 1953 he was invited to visit Australia and there addressed many Ophthalmological gatherings. He returned by way of the United States and Canada and saw eye centres in both countries. He also visited numerous eye clinics on the Continent.

I perhaps knew Seymour best during the early years of the war and I could not have wished for a better colleague. However trying the circumstances he never lost his sense of proportion and was always cheerful and unruffled. He displayed this same serenity during his grave illness of the past two years. Although aware of the incurable nature of his complaint, he carried on his work with amazing fortitude until a few months ago.

Always his hospital duties took first place in spite of a busy practice.

It is sad that he will not work in the new Ophthalmic Ward for which he has striven.

Mr. Philps was married twice, having three daughters by his first wife, formerly Miss Joan Wood Hill. He married in 1948 Miss Dilys Bronwen Jones and they had two sons.

R.S.

THE RELEVANCE OF LEPROSY TO MODERN DAY CONCEPTS OF MEDICINE

by R. G. COCHRANE

INTRODUCTION

IT WOULD not be an understatement to say that the average medical student's ideas with reference to leprosy are very largely based on propaganda material which he reads from time to time. His reaction, when leprosy is discussed, would be something like this: "Oh, yes. You can cure leprosy now. There is a pill you can give."

Even after thirty years of more or less concentrated study in leprosy in various parts of the world, I find that the great advances in our knowledge of this subject, apart from therapy, are little known outside the specialist sphere. This is because leprosy has never been considered as a disease which could contribute to the understanding of the more basic, or fundamental, aspects of medicine. I hope, however, to show that leprosy is useful as a handmaiden for the pursuance of fundamental studies, e.g. in Neuro-physiology in relation to peripheral nerve damage, in Immunity and tissue hypersensitivity, in our understanding of the Mycobacteria, and in Orthopaedic Surgery, and Physiotherapy. I am fully aware that the readers of this *Journal* wish some information on Therapy (which will also be given), but one of the main objectives of my accepting the kind invitation of your Editor to write this article, is to endeavour to convince all those who read — and your readers are world wide — that leprosy is as relevant today in modern medicine as tuberculosis and many other diseases, which are accepted without the taint of sentimentalism and hysteria so frequently shown when leprosy is the topic of discussion.

I wonder how many, when the subject of leprosy is mentioned, conjure up in their minds the traditional picture of the 'leper', with his clapper and habit, crying, "Unclean, unclean"? If we, however, are to understand the important part leprosy plays in modern concepts of Medicine, we must rid ourselves of all ideas of social stigma and

horror, and banish from our minds any suggestion of ostracism. No longer do we hear scientific men talking about 'consumptives'; neither do we hear our physicians in charge of mental diseases talking about their 'lunatics'. It is, therefore, time leprosy was given its rightful place in medicine, and all words such as 'leper', 'tainted', 'unclean', were banished from our vocabulary, remembering that leprosy is an intensely interesting medical disease, and not a social stigma.

THE CAUSATIVE ORGANISM OF THE DISEASE

It is generally accepted that the *Mycobacterium leprae*, or the bacillus of Hansen, is the causative organism of the disease. The accumulative evidence of the past fifty years, or more, particularly that of recent work, is so significant that few now doubt the aetiological relationship of this bacillus with the disease known as leprosy. For instance, it has been shown that in every active case of leprosy *M. leprae* can be found, particularly when specialised techniques, devised within recent years, are used. The organism of leprosy is of unusual interest to bacteriologists because it is on the edge of several worlds:

1. THE PATHOGENIC WORLD—Only under special and particular conditions does it seem capable of causing disease in man.
2. THE MYCOBACTERIAL WORLD—In many respects this organism seems to be on the borderline between mycobacteria and corynebacteria. With the mycobacteria it has, in common, the acidfastness, but it differs from the tubercle bacillus in its submicroscopical structure. Reclassification may result from recent research.
3. THE VIRUS WORLD—The *mycobacterium leprae*, with its affinity for neural tissues and in its apparent ability to show an ascending neural infection reminds one of the potentialities of the viruses.

A detailed study, therefore, of the *Mycobacterium leprae* in human tissues should open up a very wide field of bacteriological research. In this connection the preliminary study of Electronmicroscopic appearances of

the *M. leprae*, which has recently been done at the Strangeways and Cavendish Laboratories, Cambridge¹, indicates that it is an organism worthy of most detailed study. The *M. leprae* has been a challenge to bacteriologists and scientists for many decades, because, so far, it has never been definitely grown outside the human tissues, and no animal, which has been inoculated with the *M. leprae* has, as yet, developed progressive disease.

It is well known that there are mycobacteria which, morphologically, are similar to *M. leprae*, such as the mycobacterium which causes rat leprosy, the mycobacterium which causes buffalo leprosy, and a mycobacterium of frogs has also been described. All these organisms have some similar characteristics, e.g. the difficulty of growing them outside the tissues of the animals which they infect, and their specificity to a particular animal tissue. A detailed study, therefore, of the behaviour of the *Mycobacterium leprae* in human tissues, along with a comparison of the metabolism of mycobacteria in general, should throw a great deal of light on this interesting and complicated field of bacteriology.

THE METHOD OF INFECTION AND THE PATH OF SPREAD OF THE *M. LEPROE*

There is a great deal of circumstantial evidence, based on some very careful work done in Bombay, which indicates that the *Mycobacterium leprae* enters into the body via the skin, and that this organism is actually rubbed into the skin, and from there passes into the finer terminals of the nerves via the axon-plasmic network. It is fascinating to speculate how the *Mycobacterium leprae* develops within the tissues of the body. The theory, which is now outlined, is based on concrete evidence which has been published. The Mycobacterium of tuberculosis has an affinity for the lymph glands, the lungs, and, to a lesser extent, joints, kidneys, and the central nervous system, whereas the *Mycobacterium leprae* appears to have a particular attraction for neural tissue. In fact, leprosy is a neural disease from its very inception. This is so striking that the word 'neural' has now dropped from the classification of the disease. Recent detailed work, especially of Khanolkar² in Bombay, has shown that the *M. leprae* pass from the skin to the axis-cylinders of the nerve via the finer

axon-plasmic filaments. How this takes place is, at present, speculation, but observed facts give evidence which indicates that the first place where bacilli appear in individuals, who develop leprosy, is in the axis-cylinders of the nerve. As the bacilli multiply or develop within the axis-cylinders, axonal swellings appear which contain *Mycobacterium leprae*, and these ultimately burst, and the mycobacteria are liberated into the corium of the skin. The progress or otherwise of the disease now depends on the ability of the tissues of the body to anchor the *M. leprae*, and so prevent it from passing into the deeper lymphatics of the skin, and entering into the reticulo-endothelial system—for progressive, lepromatous leprosy (often known as nodular leprosy) can be described as a parasitization of the reticulo-endothelial system and the *M. leprae* then establishes an almost perfect host-parasite relationship within the reticulo-endothelial system.

SUSCEPTIBILITY AND IMMUNITY

It is well known that the majority of persons at some time or other become infected with the mycobacterium of tuberculosis, as witnessed by the fact that as the majority of persons pass from childhood to adult life, they develop a positive Mantoux reaction. In other words, the Mycobacterium of tuberculosis has entered their system, and there is a general tissue reaction to its presence. Similarly, all those who come into contact with open cases of leprosy are liable to become infected. This does not mean to say that they have leprosy; it simply means that the bacillus has entered their tissues, and, as in tuberculosis, so in leprosy, they harbour the mycobacterium. Whereas the Mycobacterium of tuberculosis usually enters the body through the respiratory or alimentary tracts, the *Mycobacterium leprae* enters into the body through the skin, in all probability as a result of direct skin to skin inoculation; for example, a child sleeping with an open case, or being carried by an open case, or a person sleeping on bedding which has been contaminated by discharge from an open case, or by wearing the clothes of an open case.* Nevertheless, it has been shown that, even under the most favourable

* An open case of leprosy is that form of leprosy in which one can find the Mycobacterium by standard methods of examination, from the skin or mucous membrane of the nose.

conditions of infection, and when children are constantly living with open cases of leprosy, approximately thirty per cent of all such children fail to develop manifestations of the disease. The macrophages of the body are evidently capable of dealing with this mycobacterial invader and destroying it in the tissues.

This raises the complicated question of susceptibility, for susceptibility and immunity are not necessarily related phenomena, and it is known that a person may be infected with the *Mycobacterium leprae*, or the *Mycobacterium* of tuberculosis, without developing the disease. This indicates a form of immunity, which is little understood, and needs careful investigation, and a study of such a type of immunity in leprosy and tuberculosis would throw great light on the immune processes in disease in general. There is no true incubation period in leprosy, but a latent period, which can be defined as that period between the entrance of the *Mycobacterium leprae* into the body, probably via the skin, and the time the first clinical lesions appear. In the absence of obvious disease, *M. leprae* can be demonstrated only by special techniques, and this would seem to explain why this period is so long. This may be a matter of months, or of years, but most authorities consider that the average latent period is between one and five years, although longer periods have been reported. Once clinical lesions appear, the disease then seems to develop in one of three patterns:

1. A form, which indicates hypersensitivity, analogous to the hypersensitivity seen in tuberculosis,

2. A form, in which there is no hypersensitivity, and in which the bacilli are phagocytosed by the macrophage cells, and the reticulo-endothelial system is invaded and parasitised early, and

3. A form, which is unstable, and shows partial hypersensitivity.

The first form is a true type and is stable and known as Tuberculoid leprosy. The second type is also stable, and known as Lepromatous leprosy, whereas, as indicated, the third form is unstable, and has been given the name of the Dimorphous, or the Border-line group, in the most recent International Conference (Madrid, 1953)².

Tuberculoid leprosy, therefore, is a process whereby the tissues of the body effectively anchor the organism in the skin, and

prevent it from spreading to the deeper organs, and thus becoming disseminated throughout the reticulo-endothelial system. In tuberculosis tubercles develop systematically, e.g. in the lymph glands, kidneys, lungs, etc., whereas, in leprosy, where there is actual or potential hypersensitivity, these tubercles develop in the skin and nerves. The indication of actual hypersensitivity or potential hypersensitivity is shown by the lepromin reaction, which, in all cases of frank Tuberculoid leprosy, is strongly positive.

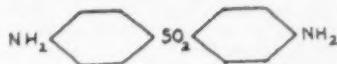
It has been shown, within recent years, that persons who have a strongly positive 'Mantoux' reaction are also liable to show a positive lepromin reaction; hence, it has been mooted that B.C.G. vaccination will confer immunity in leprosy. A French professor⁴, recently, has gone so far as to say that leprosy has largely disappeared from the Western hemisphere as tuberculosis increased. In other words, the existence of the more serious pathogenic disease, tuberculosis, confers an immunity to the less serious pathogenic disease, leprosy. The whole question of B.C.G. vaccination, and immunity in leprosy, raises a number of points of extreme interest, but it is impossible to go into detail in regard to this. All that one can say at this point is that the accumulated evidence indicates that the immune processes in leprosy are not so easily explained as this suggestion would indicate. The analogy between leprosy and tuberculosis is very close, but once one passes from a condition of hypersensitivity, or allergy, to that of desensitisation, or anergy, this analogy tends to break down. This is because, on the whole, the *Mycobacterium leprae*, in this stage, stimulates little or no reaction in the tissues, and establishes an almost perfect host-parasite relationship in the reticulo-endothelial system. This subject of immunity and hypersensitivity is of absorbing interest as applied to leprosy, and illustrates very clearly the relevance of a study of leprosy to the modern concepts of tissue hypersensitivity and immunity in medicine.

MODERN CONCEPTS OF THE THERAPY OF LEPROSY

It is impossible in an article of this nature to give a complete account of the treatment of leprosy and a few references are selected in the Bibliography⁵ at the end of this article, to which those interested may refer. It

would, however, be surprising if the *M. leprae* had not succumbed to some extent to the attack of modern chemotherapeutic and antibiotic agents. It is, however, still more surprising to find that this field is extremely limited and there is, in reality, only one chemotherapeutic drug which has a marked and consistent effect on the *M. leprae*, interfering at first with its metabolism and then with its growth, and finally causing the bacillus of leprosy to undergo gross morphological change until this bacillus is converted to a mass of acid fast granules, which gradually disappear from the tissues. Whether a person becomes cured from the disease or not depends finally on the ability of the macrophages of the body to deal with the amorphous granular products of the bacilli. There are some authorities who consider when the bacillus gets to this stage it is already dead, but there is no final proof of this as yet.

The drug which is most generally used in the therapy of leprosy is one with a comparatively simple chemical formula, and has been known to scientists since 1908, but up to recently has been considered too toxic for general use. The drug goes under the name of diaminodiphenylsulphone, and is known in the B.P.C. as Dapsone, and has the following simple structural formula:



In addition to Dapsone, derivatives of this substance are also used, such as Promin, Diasone, and Sulphetrone. These are di-substituted products, and when given by mouth are hydrolysed to the parent substance. It can be said, however, that the drug which is most commonly administered is the basic substance, given by mouth. It must be borne in mind that the parent sulphone, diaminodiphenylsulphone, or Dapsone, is a toxic substance, which is detoxicated in the liver. Therefore, when this drug is being given, two principles must be followed. The commencing dose must be low (not more than 50 mgms. twice a week, preferably 25 mgms. twice a week), and the dosage of the drug should be increased very slowly, taking four to six months to reach the maximum dose of 300 mgms. to 400 mgms. twice a week. In cases where there are reactions or untoward symptoms, as the result of the administration of the parent

substance, then the di-substituted sulphone, known as Sulphetrone, is recommended. This should always be given parenterally as a 50 per cent solution, for it has also been shown that a 50 per cent solution of Sulphetrone given intramuscularly, or deep subcutaneously, is not broken down to the parent substance, but is transformed into a mono-substituted sulphone⁶, and, therefore, is not toxic. The commencing dose of Sulphetrone is a quarter of a cc. intramuscularly twice a week, gradually increasing to a maximum of 3 ccs. twice a week.

Most persons who read about leprosy are under the impression that the Sulphone drugs now are a specific for the disease, and the word 'cure' is being used relatively lightly. As yet we do not know whether *M. leprae* develop permanent resistance to the Sulphone drugs, but recent work and observations from America indicate that resistance may develop⁷, but that it takes years to manifest, and may not show itself for ten to fifteen years from the commencement of treatment.

While one must be realistic in one's approach to the therapy of leprosy, one can say that modern drugs, carefully applied, combined with preventive measures, which result in breaking the contact between the infective case and the child, should bring the disease under control in a measurable period of time. Wherever a combination of reasonable and commonsense segregation has been combined with an adequate use of the sulphone drugs, leprosy has tended to become controlled in a community, and there are several areas in Nigeria today where the incidence of leprosy has become so low that one can state that the disease is under complete control. However, these areas are among the most favourable areas in the world, and, while this is the result which one should expect, there are very numerous factors which cause one to issue a note of cautious optimism in regard to the rapid control of leprosy throughout the world.

MODERN CONCEPTS OF ORTHOPAEDIC SURGERY AND PHYSIOTHERAPEUTIC PRINCIPLES IN LEPROSY

One cannot close this article without a reference to the important advances which have resulted in application of modern Orthopaedic⁸ and Physiotherapeutic⁹ principles in the rehabilitation of leprosy patients. The modern development of Ortho-

paedic and Physiotherapeutic treatment in Leprosy, combined with a study of the Radiological Appearances of advanced lesions in Leprosy¹⁹, have demonstrated the fact that all deformity in this disease is completely preventable. In other words, the neuropathies which take place in Leprosy have nothing to do with the specific process, but are entirely due to two factors: (1) the presence of anaesthesia, and (2) the factor of trauma. If adequate preventive measures were taken, no person with Leprosy should ever become deformed. For evidence of this statement, readers are referred to articles published in the *Annals of the Royal College of Surgeons*¹¹ and in *The Journal of the Faculty of Radiologists*¹⁰. It has also been realized, within recent years, that while all nerves tend to become invaded by the *Mycobacterium leprae*, there are only certain muscles which become involved. For instance, in the upper extremities the intrinsic muscles of the fingers and thumb are generally paralysed, or, in other words, it is the muscles supplied by nerves passing over bony points, or which come to the surface, that tend to be paralysed. Other muscles usually escape. The small muscles of the hand are affected, since they are supplied by the ulnar nerve after its emergence from the intermuscular septum in the arm. Muscles supplied by the median nerve, after its entry into the carpal tunnel, may also become involved. All the muscles of the lower leg are liable to be affected, except the *tibialis posterior* muscle, and this muscle can be used effectively for the complete relief of drop foot in leprosy. In this connection it is interesting to remind oneself that the nerve supply of the *tibialis posterior* muscle runs a deep course, and does not come to the surface, and this muscle is practically never paralysed. This observation has been of great help to Orthopaedic Surgeons in their approach to the question of muscle transplants in leprosy. Why leprosy is so selective in its muscular paralysis is unknown. The reason may either be because it is those nerves which are on the stretch, or tend to be injured by passing over bony points, that become affected, or it may be due to a difference of surface temperature.

CONCLUSION

I hope I have said enough to convince my readers that a study of leprosy is indeed

relevant in our understanding of basic and fundamental principles of Medicine. We must ever be on our guard against excessive optimism, so that the gains we have made in recent years in our understanding of this most puzzling of diseases may be consolidated, and those who are working in Leprosy may not be tempted to indulge in wishful thinking. The *Mycobacterium leprae* has defeated science for the past eighty years or more, and it is too much to hope that the use of a bottle of Sulphone pills or a tube of B.C.G. Vaccine will result in the complete elimination of Leprosy from the world. This is an object which is one worthy of pursuance, but its attainment will take many years, much hard work, and the application of the best minds to the subject.

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THE MAYO CLINIC

by IAN P. TODD

THE MAYO CLINIC. This is the name of a medical institution which is perhaps the best known in the whole world. But what is it and where is it? It is not old compared with our own hospital or even other well-known American hospitals. In fact it is not even a hospital. Wherein therefore does its fame lie?

I was fortunate in being able to pay a visit to Rochester recently and was royally treated by the Mayo Clinic staff. Do not make the mistake of assuming that the Clinic is in Rochester, New York, for it is many miles from there in a small town (population 35,000) in the mid-west state of Minnesota, some 350 miles north-west of Chicago.

The first Mayo Clinic building was not opened until 1914, but it is necessary to trace its history back a few years before this to understand the great foresight of the Mayo family.

In 1883, a tornado devastated much of Rochester. Casualties were high and there was no adequate hospital. Thanks, however, to the skill of Dr. William Worrall Mayo and the care of the Sisters of Saint Francis, the loss of life was not as large as it might otherwise have been. As a result St. Mary's Hospital, staffed by nuns, was built to take care of any future disaster. This was opened in 1839. It consisted of forty beds and the medical staff was composed of William Worrall Mayo and his two sons, William James and Charles Horace.

As their work increased, other partners joined the practice and by 1900 the nucleus of the clinic was formed.

It is necessary to define 'The Mayo Clinic' as it exists today. It is 'a voluntary association of physicians, the primary interest of which is the conduct of the co-ordinated group practice of medicine.' Thus the clinic is a large group practice dealing with private patients. It owns no hospitals, no buildings nor other property.

In 1911, father Mayo died, but his two sons, who were both to live until 1939, gathered around them men of great ability

such as Plummer, Judd and Balfour. One has the impression that each brother had a very different personality. Dr. Will, the elder by four years, a bluff Honest John, kind but shrewd in business, whilst Dr. Charlie was perhaps gentler, less explosive yet equally persuasive. Their work prospered and the name of the clinic became well known for the ability of the staff, their results, researches and publications. At the same time they became rich.

In 1914, a building was opened to house the Clinic, and in the same year the staff were approached by the President of the University of Minnesota. He suggested that educational and research work should form part of the functions of the now famous organization. Thus, in 1915, the Mayo Foundation for Medical Education and Research was formed as part of the Graduate School of the University of Minnesota.

The Clinic prospered exceedingly and, presumably to avoid taxes and the like, in 1919, the Mayo Association was formed. It is a benevolent and educational corporation which acts as trustee to all the assets of the Clinic—buildings, instruments, records and the like.

In 1928, a new building of Romanesque architecture, fifteen stories, some 295 feet high and surmounted by a revolving beacon, were added. In the tower was a Carillon of twenty-three bells cast at Croydon, England. Even this building proved inadequate and in 1955 a ten-storyed, ultra-modern, steel framed, concrete building was opened.

The function of the Clinic buildings is much like that of an Outpatient Department of any large hospital. There are physicians, surgeons and representatives of all the specialties. There are departments for all the ancillary diagnostic units. Patients are passed from one to another as need arises.

As most of the patients come from outside Rochester — there is little emergency work — they stay at a hotel or boarding house until examinations are completed. Thus, a large hotel trade has grown up in Rochester



THE MAYO CLINIC

and the Clinic is able to control them to some extent and to arrange for certain extra services to be given. The largest group of hotels is owned by the Kahler Corporation, who also run the Diet Kitchen, but its light, heating and ventilation is controlled by the privately owned Franklin Heating Station of the Mayo buildings.

If it is decided that in-patient hospital treatment is needed, the patient is admitted to one of the two major hospitals in the city. These are St. Mary's and the Methodist Hospitals (there are certain annexes which compose special departments such as E.N.T. in the Methodist Worrall and radiotherapy in the Curie). St. Mary's, still conducted by the Sisters of St. Francis, now has a large nurses' training school and 860 hospital beds. A further new block is being built. The present Dr. Mayo, Charles W. ('Chuck') works only at St. Mary's. I believe it is true that the Mayos originally promised that they would never treat patients in any other hospital.

Each of the hospitals has its own consulting staff but all are drawn from the Mayo

Clinic. The Clinic staff numbers about 300 medically qualified persons.

With the growth of the institution, the chances for research were much increased, and in 1952, the research laboratories were removed from the animal research farm outside Rochester to the new Medical Sciences Building close at hand to the Clinic. In this fascinating building a Fellow, of whom there are about 600 attached to the clinic staff, will probably start his period of graduate work which may lead to a degree from the University of Minnesota. A Fellow usually stays in Rochester for 3-4 years but it may be more or less. He or she will usually come there a year or two after qualifying, though my impression is that this is too early to reap the full benefits from the training. Fellows come from all over the world and though most of the British Universities and London teaching schools were represented, I met no one from Bart's.

The Fellow usually starts his work in the Medical Sciences Building and there, for six months to a year, he will investigate some problem in which he is interested or will fit

in with some group project. He may, if he wishes, and he is encouraged to do so, carry on this work throughout his whole stay in Rochester and publish the work. It must however be approved by an editorial committee and also carry the name of the staff member under whom it was carried out. In this way the standard of publication is kept on a high plane. There is almost no branch of research which cannot be carried out. The apparatus which is needed is planned and engineered in the Foundation's own department. This is so large and so up-to-date that graduate engineering scholarships are given to work there. There are facilities for animal study with operating theatres and staffs like a hospital. Operating lists for surgical research projects are posted daily. There are laboratories for biology, bioassay, biophysics, metabolism, intestinal secretion and motility, liver and lymph study, physiology, neurophysiology, isotopes, electroencephalographs, electrocardiographs, electromyographs and many other studies.

From here the Fellow moves into the clinical field and, after passing through the basic departments as a junior assistant, will be attached to a series of clinicians in the department in which he is specially interested. He will in the end, become the first assistant to a staff member. The main criticism which may be launched against this prolonged 'rotating internship' is that there is little personal responsibility and little practical experience. Whilst this is true, for all the patients are private, he has the chance to see, examine and investigate a vast amount of material and also to appreciate treatment of the best quality. There is little practical surgery for the Fellow who is so interested, but, if he has already some practical experience, the surgery which he will witness can teach him much.

There are many departments in the Clinic which can be of great assistance to the would-be research worker or author. There is an excellent library, with desks close to the shelves. One thousand and nine hundred journals are subscribed to, so it is unlikely that the investigator will find the particular one he wants missing. The statistical department has a very good method of cross reference so that it is possible to find out

whether there is a relationship between the most obscure of diseases. The central registry has a method of dispatching notes to any department or hospital within seconds, *via* moving belt conveyors or compressed air.

I've said little about the hospitals for they are not truly part of the Mayo Clinic. They are simple practical buildings suitable for the particular type of work they have to do. There are straight corridors with single rooms, double rooms and four bedded rooms which make up the equivalent of a ward. There is, however, nothing outstanding about them and there are no special gadgets such as one might have expected to find.

The operating rooms (not theatres) are all on one floor and each surgeon has two available at all times. In this way a great deal of time may be saved between cases and during opening and closing of the wound. Work starts at 7 or 7.30 a.m. and many operations are performed in a day. The patients leave hospital as soon as possible and return to a hotel. They are seen in the Clinic daily where dressings may be carried out and stitches removed. This increases the turn over still further.

What of the city of Rochester itself? For the Fellow there is the Foundation House, the old home of the late Dr. Will. There are facilities for sports in the Mayo Parks and the Mayo Auditorium is a fine hall for many kinds of entertainment—I heard the Minneapolis Symphony Orchestra there. The people are remarkably hospitable as only Americans can be and a visit to Mayowood, the old home of Dr. Charlie, now occupied by his son is something one will remember all one's life. There are eight Mayos of the fourth generation but unfortunately none shows a yen for the medical profession. The town itself is neat, well-planned and clean, and has a charming air of friendliness, a feeling which also pervades the Clinic, for the staff works as one large efficient unit without prejudice or rivalry.

Sitting in the coffee bar at the Kahler Hotel one wonders why it is that one is so attracted to Rochester and the Clinic. One's reveries are interrupted, however, as one's neighbour leans across and says 'I guess I'm duodenal, what are you?'

WILLIAM HARVEY

TWO MEDICAL ANECDOTES

The one related by Sir Kenelm Digby, the other by the Honourable Robert Boyle

by RICHARD A. HUNTER AND IDA MACALPINE

ON JUNE 3, 1957, there will fall to be celebrated the tercentenary of the death of William Harvey, 'the most famous of all the great men whose names occur in the history of St. Bartholomew's Hospital' (Moore, 1918). 'It is one of the brightest features in the history of . . . St. Bartholomew's Hospital' wrote Sir James Paget (1846), 'that the great discoverer of the circulation, "*physiologiae lumen: Angliae immortale decus*" [Haller], was for four and thirty years its physician': therefore 'it cannot but be pleasure to dwell on all that relates to the great Harvey.' Yet there is still no definitive account of Harvey's scientific work and life 'which is much needed and must some day be written' (Aveling, 1875). For the former there is available almost too much material because Harvey's observations and researches covered many disciplines which have since developed as separate branches of knowledge. The reverse obtains of biographical material: 'It is strange that of this wonderful life so little that is personal is known to us. In fact, almost all that we do know we owe to the gossiping pages of a layman, Aubrey' (Mitchell, 1912). 'It is not possible', lamented Sir D'Arcy Power (1897) in the most complete life of Harvey so far written, 'to add much that is new'.

What little is known of Harvey's medical practice is mainly derived from scattered observations in his own writings. These also contain tantalising references to a future work to be entitled 'Medical Observations'; unfortunately it was never published and no manuscript of it is known to exist. As it is, *Exercitationes de Generatione Animalium* (1651) contains most of his clinical material, much of it obstetrical and gynaecological. There are also descriptions of a patient suffering from cardiac asthma who died of a ruptured heart, and of another whose jugular veins were 'enlarged to the size of a thumb' and 'pulsated violently': at post-mortem 'the cavities of the ventricles

equalled those of a bullock's heart in size.' The only letter from Harvey's professional correspondence to survive (Keevil, 1953), contains directions for treating a lady 'affected with a cholic passion of a hot and bilious nature' by blood-letting and purging (Willis, 1878).

It is therefore an act of homage to place on record two anecdotes of Harvey's medical practice recorded by contemporaries which seem to have escaped the notice of his biographers. We first saw them mentioned by Wanley (1678) in his encyclopaedic collection of startling facts and stories, and from there traced them to their sources. They tell of patients seen by Harvey: the first was primarily a neurological case, the second psychiatric. They are valuable for two reasons. First, they reveal Harvey's interest in the physiology of the nervous system and the functions of the mind, interests scarcely mentioned by his commentators. Second, they add two new names to the list of his friends and so increase what little personal knowledge there is of him.

SIR KENELM DIGBY'S RELATION

THE CASE OF 'A SERVANT IN THE COLLEGE OF PHYSITIANS IN LONDON'

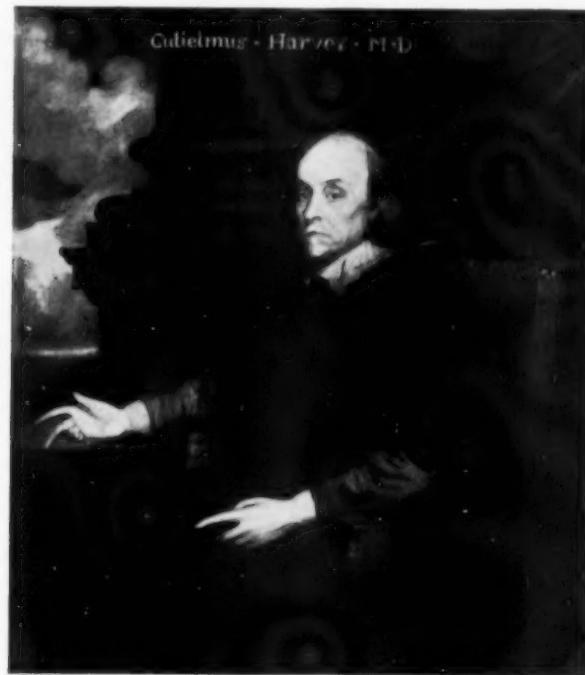
Sir Kenelm Digby (1603-1665), bibliophile, writer, philosopher, scientist, naval commander, member of the original Council of the Royal Society, was the most romantic figure among the great intellects who flourished in seventeenth century England. His most ambitious work was entitled 'Two Treatises. In the one of which, the Nature of Bodies; in the other, the Nature of Mans Soule; is looked into: in way of discovery, of the Immortality of Reasonable Soules' (Paris, 1644; London, 1645). It was written as a course of instruction in natural philosophy for his son in England, while Digby

himself was in exile in France after almost two years imprisonment by the long Parliament.

In Chapter 32, 'Of sensation, or the motion whereby sense is properly exercised,' Digby discussed the possible function of nerves, in particular the problem of how one and the same structure could conduct both motion and sensation. Digby's friend the 'ingenious and acute Descartes' (Harvey, 1649) thought that motion was actively produced by 'animal

tomes of the palsie do no way confirme Monsieur des Cartes his opinion.' Digby wrote:—

'Monsieur des Cartes endeaoureth to confirme his opinion, by what vseth to fall out in palsies, when a man looseth the strength of moving his handes, or other members, and neuerthelesse retaineth his feeling: which he imputeth to the remaining intire of the stringes of the nerues, whiles the spirits are somewhat defective. To this we may awys, by producing examples of the contrary in some men, who haue had the motion of their limbes intire and no wayes preuidiced.'



WILLIAM HARVEY*

'spirits' sent along the nerves from brain to muscle, whereas sensation was passively produced by the same nerves mechanically transmitting a vibration to the brain (Descartes, 1637; 1641). Digby disagreed with Descartes, perhaps as a result of previous discussion of this subject with 'the learned Haruey', and as evidence of the inadequacy of Descartes' theory cited one of Harvey's patients whose symptoms clearly contradicted it. In the section entitled 'That the symp-

but haue had no feeling at all, quite ouer their whole case of skinne and flesh: as particularly a seruant in the colledge of Physitians in London, whom the learned Haruey (one of his Masters) hath told me, was exceeding strong to labour, and very able to carry any necessary burthen, and to remoue things dexterously, according to the occasion: and yet he was so voyde of feeling that he vsed to grind his handes against the walles, and against course lumber, when he was employed to rummage any; in so much, that they would runne with bloud, through grating of the skinne, without his feeling of what occasioned it.'

* Digby's report of this case shows not only that Harvey had noticed an uncommon con-

* Portrait reproduced by kind permission of the Royal College of Physicians of London.

dition long before similar cases were described by other physicians, but also and more important as appears from the context, he had recognized the significance of the patient's symptoms for the understanding of the physiology and pathology of the nervous system. How interested Harvey was in the problem of motion and sensation can be seen in his anatomical lecture notes of 1616, as well as from observations he made in the case of a young nobleman, whose heart had been exposed by injury. Harvey was not content merely to observe and feel his beating heart, but proceeded to test sensation: 'I cannot be silent on the remarkable fact, that the heart itself, this most distinguished member in the body, appears to be insensible . . . the heart was without the sense of touch' (Harvey, 1651). Clearly Harvey's enquiring and discriminating mind had formulated the fundamental problem in neurology, the conduction of motor and sensory impulses, which remained unsolved until the early nineteenth century when Charles Bell showed that motor and sensory nerves were functionally and anatomically distinct. Only when this knowledge had been secured could scientific neurology begin to develop. Bell's discovery has therefore been rated second in importance only to that of Harvey's discovery of the circulation of the blood (Neuburger, 1897).

DIFFERENTIAL DIAGNOSIS

It is difficult to make a definite diagnosis after an interval of more than three hundred years since Harvey saw the patient and Digby wrote his account. Had the patient 'no feeling at all, quite ouer . . . [his] whole case of skinne and flesh', and did Harvey only mention in illustration how 'he vsed to grind his handes against the walles . . . without his feeling . . . it'? If so, this might be the first description of that very rare condition 'congenital universal indifference to pain'. The patient certainly showed no evidence of motor weakness: he 'was exceeding strong to labour'. Nor was there obvious loss of proprioception, for he was able 'to remoue things dexterously': this may be taken to exclude a lesion of the posterior root ganglia such as occurs in sensory radicular neuropathy. It is not recorded whether he was insensitive to hot and cold, nor is it entirely clear whether he was suffering from true

anaesthesia or merely from 'a morbid indifference to painful stimuli' (Critchley, 1953). If the former, then the diagnosis of early syringomyelia seems the most probable; parietal lobe lesion causing bilateral 'agnosia for pain' is very unlikely in a healthy subject showing no evidence of apraxia. There is no evidence that the loss of sensation was of psychological origin; had it been, one would not have expected the patient to continue hard work which required him 'to rummage' and 'carry any necessary burthen'.

That Harvey was one of the patient's 'Masters' at the College of Physicians suggests Harvey must have seen him at a time when he held office at the College, either as Censor (1613, 1625, 1629), Elect (from 1627), or most likely when he was Treasurer in 1628 and 1629. Unfortunately the College Annals (MS Royal College of Physicians) contain no mention of servants during this period and nothing is known of the patient's subsequent history.

HARVEY AND DIGBY

Harvey's biographers do not mention Digby although all the evidence points to them having met repeatedly for discussion of scientific matters of mutual interest. Digby, who 'stands to embryology as an exact science, much in the same relationship as Bacon to science as a whole' (Needham, 1934), referred with admiration to the work 'of that learned and exact searcher into nature, Doctor Haruey'. His ardent advocacy of Harvey's 'curious and excellent doctrine of the circu'ation of the bloud' was the 'first discussion of Harvey's discovery in the English language' (Fulton, 1937). In Digby's own words, 'if you desire to follow the bloud all along every steppe, in its progresse from the hart round about the body, till it retorne backe againe to its center, Doctor Haruey . . . who hath both inuented and perfected it . . . [and] who most acutely teacheth this doctrine, must be your guide'. They shared not only an interest in the natural sciences but also a number of friends, such as Thomas Hobbes, John Selden and Ben Jonson. Following Harvey's example, Digby experimented on the heart and gave considerable thought to the problems of generation (Digby, 1644), on which he quoted some observations made by Harvey in November, 1633, but not published until 1651 (Harvey,

1651). This led Sir William Osler (1907) to suggest that Digby must have learnt Harvey's views 'from converse, or from the Lumleian Lectures, which no doubt he often attended'. Even Highmore who knew Harvey and whose *History of Generation* (1651) contained many censures of 'The Concept of Sir Kenelm Digby concerning the generation of Creatures', credited Digby with being imbued with Harvey's spirit: 'I confess his curious eye, seldom takes any thing upon trust, or slightly passes by what is observable'. Harvey and Digby probably met between the end of 1633 and the beginning of 1636, the only years during which both were in London simultaneously for any length of time: the otherwise much-travelled Digby being then in voluntary seclusion in Gresham College making scientific experiments while in mourning for his wife. Their personal contact was certainly maintained until 1639: when in that year Harvey's merchant brothers Daniel and Eliab started to deal in land, their first known transaction was to lend Digby £10,000 on mortgage of his estates (Herringham, 1929).

THE HONOURABLE ROBERT BOYLE'S RELATION:

MR. HOLIER'S CASE OF A MAID WHO HAD LOST THE SENSE OF FEELING

Robert Boyle, whose name remains attached to his law of gaseous elasticity, was another of the seventeenth century 'natural philosophers' who embraced all knowledge and encouraged the experimental method so brilliantly demonstrated by Harvey. His account of 'the only Discourse I had . . . with our famous Harvey' during which he asked Harvey 'What were the things that induc'd him to think of a *Circulation of the Blood*' (Boyle, 1688), is so well known (Lawrence, 1766) that it has led to an earlier and different version of their meeting being overlooked. In 'Some Considerations Touching the Usefulness of Experimental Naturall Philosophy' (1663), Boyle recounted that he had gone to consult Harvey 'about my weak Eyes'. They also discussed general medical matters, such as whether some diseases were erroneously considered incurable from their nature, which when better understood would prove curable after all. Harvey must have thought this was so, for in illustration 'he

told me, among other things (as a very remarkable one) that he had once a Patient (whose Name and Profession he told me, but I remember not) that had a confirm'd Cataract in his Eye, and yet upon the use of Physick to which he could not ascribe so wonderful an effect that Cataract was perfectly dissipated, and the Eye restored to its wonted Function'.

Boyle used this case to suggest that 'it were no ill piece of service to Mankinde, if a severe Collection were made of the Cures of such Persons as have recovered after having been judg'd irrecoverable by the Doctors: That Men might no longer excuse their own Ignorance by the impotency of Nature . . . as if the Art of Physick, and their skill, were of the same extent. And the Cures that seem performed by Nature her self need not be left out of such a Collection':

'Which brings into my minde another Observation, imparted to me, a while since, by that excellent and experienc'd Lithotomist, Mr. Hollier, who told me, that among the many Patients sent to be cured in a great Hospital (of which he is one of the Chirurgions) there was a Maid of about eighteen Years of age, who, without the loss of motion, had so lost the sense of feeling in the external parts of her Body, that when he had, for tryal sake, pinn'd her Handkerchief to her bare Neck, she went up and down with it so pinn'd, without having any sense of what he had done to her. He added, That this Maid having remained a great while in the Hospital without being cured, Dr. Harvey, out of Curiosity, visited her sometimes; and suspecting her strange Distemper to be chiefly Uterine, and curable only by *Hymeneal Exercises*, he advised her Parents (who sent her not thither out of poverty) to take her home, and provide her a Husband, by whom, in effect, she was according to his Prognostick, and to many Mens wonder, cur'd of that strange Disease'.

HARVEY AND BARTHOLIN

This patient aroused such interest that the Danish anatomist Thomas Bartholin (1657) also gave an account of her: 'Aliam virginam sanam in Anglia novit D. London Medicus, amicus olim meus, quae uestiones in collo non sentiebat, acumq; & fronti impressam & unguinum radicibus intrusam sine ullo doloris sensu admisit' (*A physician of London, an old friend of mine, knew a heathy maid in England, who did not feel her neck being burnt, and allowed [needles] to be pushed into her forehead and intruded into the roots of her nails without any sense of pain*).

'D. London Medicus' literally means 'Master London, physician', but careful search has

not revealed any contemporary physician of that name. Presumably 'a physician of London' was meant, whose name was omitted in error. As to our knowledge, neither this nor any similar case had been reported in any English medical text before 1657. Bartholin must have heard about the patient in a personal communication, of which Harvey himself was the most likely author. Bartholin thought very highly of Harvey and his work (Willis, 1878), and one letter remains of his correspondence with him (Bartholin, 1663). Harvey's only reference to Bartholin, which occurs in a letter to J. D. Horst dated 13th July, 1655, confirms the impression that they had been in correspondence.

HARVEY AND HOLLIER

The 'great Hospital' of which Thomas Hollier was 'one of the Chirurgions' was St. Thomas's, a post to which he had been appointed in 1644. In 1663 he also became lithotomist to St. Bartholomew's Hospital. It is not possible to say when Hollier told Boyle this anecdote of Harvey, as he is not mentioned by either Harvey's or Boyle's biographers (e.g. Moore, 1944); by 1663 when Boyle's book was published it was 'a while since'. On the other hand, it is fairly certain that Harvey saw Hollier's patient between his return to London in 1646 after four years at Oxford (Moore, 1890), and his retirement a few years later. 'He was now 68; a martyr to gout, childless, and suffering under a series of heavy bereavements, he can have had but little heart to re-enter upon an active professional life in London' (Power, 1897). Indeed by Christmas 1650 he had withdrawn to a 'peaceful haven' where he told Sir George Ent 'did I not find solace in my studies, and a balm for my spirit in the memory of my observations of former years, I should feel little desire for longer life' (Harvey, 1651).

A TALE OF TAILS

It is possible that in this previously unnoticed friendship between Harvey and Hollier, may be found the clue to the author, so far unidentified, of the following fanciful story recorded by Harvey (1651): 'A surgeon, a trustworthy man, and with whom I am upon intimate terms, on his return from the East Indies informed me, in perfect sincerity, that some inland and mountainous parts of

the island of Borneo are still inhabited by a race of caudate human beings . . . with a tail, thick, fleshy, and a span in length, reflected between the buttocks, and covering the anus and pudenda: so regularly has nature willed to cover these parts'. There is evidence that Hollier may have travelled in his youth, for he did not commence his apprenticeship to a surgeon until he was over 20 years old, the usual age being 14 (Young, 1890). In 1637, when he received the freedom of the Barber-Surgeons Company (MS. Guildhall), he was 27 or 28 (Foster, 1887). He had served seven years' apprenticeship at St. Thomas's Hospital (MS. St. Thomas's) with James Molins, who was also lithotomist and cutter of wens and ruptures to St. Bartholomew's Hospital, and perhaps accompanied him in 1634 to the examination of the 'Lancashire Witches' supervised by Harvey (Aveling, 1875). Before starting his formal training Hollier may have spent some years gaining experience as an assistant ship or army surgeon, for which no qualifications were required, and so come to visit the East Indies. That Hollier had qualities that would make him acceptable as a friend to Harvey, is recorded in the diary of his patient and friend Samuel Pepys, where Hollier is described as a pleasant companion who, knowing Latin, was more learned than most surgeons of the time:

'28th February, 1667. Mr. Hollyard [sic] dined with us, and pleasant company he is. I love his company, and he secures me against ever having the stone again . . . 30th April, 1668 . . . also comes Mr. Hollyard a little fuddled, and so did talk nothing but Latin, and laugh, that it was very good sport to see a sober man in such a humour.'

Clearly Hollier when 'a little fuddled' was quite capable of telling the serious-minded Harvey of 'a race of caudate human beings.'

HARVEY'S INTEREST IN THE AFFECTIONS OF THE MIND

It is perhaps no coincidence that these two patients of Harvey whose case-histories have been preserved by contemporaries, suffered either from neurological or mental disease. Harvey's interest in the functions of the nervous system and 'the affections of the mind' may be seen in his earliest known writings, his lecture notes of 1616 (Harvey, 1616). These contain references to hysteria, hypochondria, melancholia and madness.

From a study of Harvey's still unpublished lecture notes of 1627 Sir George Paget (1850) was led to conclude that he 'had recognized the resemblance between the states of dreaming and insanity'. In *Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus* (1628), which is 'justly considered to be one of the most fruitful and important books ever published' (Keynes, 1953), Harvey made another observation, the full importance of which is only now being realized as a result of research in that branch of psychiatry called psychosomatic medicine: 'every affection of the mind that is attended with either pain or pleasure, hope or fear, is the cause of an agitation whose influence extends to the heart.' In *Exercitatio Anatomica De Circulatione Sanguinis* (1649) Harvey returned to this subject when he wrote of 'the signal influence of the affections of the mind . . . in almost every affection, appetite, hope, or fear, our body suffers, the countenance changes, and the blood appears to course hither and thither'.

Selden (1689) recorded Harvey's skill in dealing with patients suffering from mental illness: 'A Person of Quality' complained that 'he had four Devils in his head'. Selden realized 'that 'twas only Melancholy that troubld him', and told the patient that apart from himself there was only 'one Physician more in the whole Town that could Cure the Devils in the head, and that was Dr. Harvey'. That his colleagues also appreciated his ability as a psychotherapist and turned to him when troubled in mind, we have on the authority of Sir George Ent, who in his preface to Harvey's *Exercitationes de Generatione Animalium* (1651), recounted how 'Harassed with anxious, and in the end not much availing cares, about Christmas last, I sought to rid my spirit of the cloud that oppressed it, by a visit to that great man, the chief honour and ornament of our College, Dr. William Harvey'.

When Harvey went to see Hollier's patient at St. Thomas's Hospital, he recognized at once that she was not suffering from some dread bodily disease, although she had 'remained a great while in the Hospital without being cured'. In 1616 he had first mentioned a 'mad woman' who was insensitive to 'pins in her arme'. In 1651, he referred again to the phenomenon that some patients 'who are deranged in mind, or who are agitated to such a degree by a violent passion that they feel no pain, and pay no regard to the im-

pressions made on their senses'. Harvey saw the reason for Hollier's patient being 'deranged in mind' in the fact that some 'young women . . . when they become marriageable . . . if they continue too long unwedded, are seized with serious symptoms — hysterics, furor uterinus, &c., or fall into a cachectic state, and distempers of various kinds' due to 'their eagerness for offspring' (Harvey, 1651). Hence his advice to her parents to 'provide her a Husband, by whom, in effect, she was according to his Prognostick, and to many Mens wonder, cur'd'.

Regarding another patient, 'a noble lady who for more than ten years laboured under furor uterinus and melancholy', he remarked in the pathology of his age, 'How dreadful, then, are the mental aberrations, the delirium, the melancholy, the paroxysms of frenzy, as if the affected person were under the dominion of spells, and all arising from unnatural states of the uterus' (Harvey, 1651). These observations on so-called hysterical anaesthesia and paroxysms, show that Harvey clearly recognized the signs and symptoms of the condition familiarized as 'la grande hystérie' by Charcot at the Salpêtrière more than two hundred years later.

In the same book Harvey gives in passing one of the earliest clinical descriptions of shared delusions or *folie à deux* (Greenberg *et al.*, 1956): a woman with ten children married a second husband and became convinced she was pregnant again. She managed to persuade her sister of the fact and 'No arguments of mine could divest her of this belief. The symptoms depended on flatulence and fat'. He also described another variety of pseudocyesis occurring in a childless patient, who 'experienced in her own person all the usual symptoms of pregnancy . . . calculated the time at which she expected her delivery . . . prepared the bed, cradle, and all other matters ready for the event. But all was in vain. Lucina . . . tutelar deity of childbirth . . . refused to answer her prayers; the motion of the foetus ceased; and by degrees, without inconvenience, as the abdomen had increased so it diminished; she remained, however, barren ever after'.

CONCLUSION

Although it is often stated that 'Harvey's clinical medicine did not differ appreciably

from that of his contemporaries' (Bayon, 1938; 1939), this short survey demonstrates that in fact he possessed that interest in and understanding of 'the signal influence of the affections of the mind' (Harvey, 1651) which has always characterized the great clinician.

The two anecdotes of his clinical practice recorded by Sir Kenelm Digby and the Honourable Robert Boyle, supported by further evidence from his published writings, show that Harvey applied his genius also to those branches of medicine which have since developed separately as neurology and psychiatry.

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THE EXPERIENCES OF A RAW SURGEON-LIEUTENANT

by SURG-LT. R. J. KNIGHT

ONE DAY late in January last year three ex-Bart's Housemen met on the down platform at Surbiton station and boarded the Portsmouth train. The new bowler and the old and new trilbies were tossed nonchalantly on the rack, and their owners settled back to discuss whether or not they were a day late in joining the Navy. As it turned out they were. Their unpractised minds had been unable to fathom the Admiralty instructions, and a phone call to the appropriate department had only confirmed their error. Fortunately for their peace of mind they remained ignorant of this unpropitious beginning to their naval careers until they arrived at the Royal Naval Barracks.

Somewhat to the relief of the newly joined Surgeon Lieutenants, the first person they met on entering the ward room was another Bart's man, who had joined the previous day. He undertook to show them the ropes and directed them to report to the Sick Bay.

The Barracks at Portsmouth are laid out with a main road separating the ward room from the rest of the buildings, and crossing this road when the Dockyard goes home can be very dangerous; it is as bad as King's Parade when lectures are over and the undergraduates are cycling and sprinting back to their Colleges for lunch. Having survived the road, we reached the Sick Bay and started the joining routine. We decided that the most important thing was to draw our kit before the clothing store shut. Everything that the well dressed officer wears, except the uniform suit, was handed over the counter, including two sets of Action Working Dress—blue denim trousers and shirts, ideal for cleaning the car, but not much use for doctoring. These were fitted by eye, and, unfortunately, the Wrens were not very good guessers. The Surgeon Lieutenant who had signed on for four years also received a uniform case which held everything; the others were expected to provide something to carry their clothing away in. Luckily the Wrens

kindly produced a couple of cardboard boxes.

Thursday evening at the Royal Naval Barracks was Mess Dinner night, but as none of us had the correct dress, we were fed with the duty officers, thanks to the kindness of the Hall Porter. Most of that evening, however, was spent with needle and thread, sewing on cap badges. One of the House Surgeons, being the sort of chap who wears a belt with braces, had brought the necessary implements with him; without his foresight we would not have been able to appear in uniform the next morning. The sewing bee over, the rawest Surgeon Lieutenants in the Navy went in search of beer, raising their hats politely in return to the sentry's salute.

Friday and Saturday were spent learning about our new life. We learnt about the system of medical documentation, which is now almost identical with that of the other services, and had talks on V.D., Dermatology and X-rays. The Navy has a very compact portable X-ray machine for service afloat, and during the demonstration this produced a reasonable full-plate chest film, which is rather more than it was designed to do. The talks were interesting and well done, and I only wish that more had stuck in my memory.

Sunday saw the group split; four going to the Royal Naval Hospital, Haslar, while I stayed in Portsmouth for the Officers' Divisional Course—a fortnight on how the Navy runs, and how to be a good officer. On the whole it was an interesting course, which taught me about the conditions of service, pay, promotion and punishment; as well as some sword drill, how the N.A.A.F.I. works, and how the Navy gets its films. The course came to an end with a visit by the doctors and executive Sub-Lieutenants to the Royal Naval Detention Quarters. This is probably the best run prison in the country, and the one with the lowest rate for repeated hospitality. The doctors entering the service

have to see what they will have to certify a man fit for, and although the inmates live a strenuous life, they manage to put on weight while they are there.

Haslar Hospital, built in the late 18th century, lies across the harbour from Portsmouth, and was at one time the largest brick building in England. It has a magnificent coat of Royal Arms over the main entrance which completely fills the end of the gable. Some of the wards are similar to those in the Bart's East Wing, only slightly modernized; while others are brand new. Six new wards were opened while I was there—the wing containing them had been gutted and the inside rebuilt. The Hospital is built on three sides of a large square. The wards are in parallel blocks about 15 yards apart, joined at each end by a common stairway. The complete plan consisting of two large 'U's', one inside the other, joined at the corners, ends and middle, as each side is two wards long. There are large lawns and trees in the square, with a church in the middle of the fourth side. Even under snow it is a superb sight.

While at Haslar we were introduced to the peculiarities of diving physiology. We were put through a compression chamber to learn at first hand the effects of pressure on the body. In my case my ears hurt so much that I had to come out. We saw the 100 foot submarine escape-tower being used, but we were not allowed to try it. We also went to sea for a day in a submarine, which is an old Naval custom for newly joined doctors; and, finally, had the exhilarating experience of being rescued from a small rubber dinghy by helicopter. The immersion suit provided for this aquatic sport is excellent; it keeps out the water and most of the cold, but it was designed to be worn with thick socks, otherwise the feet get frozen, as did mine.

Surgeon Lieutenants passing through Haslar are required to do some duty either as medical or surgical admitting officer. Some are lucky enough to be given wards to look after, but this is naturally a job for the Surgeon Lieutenants appointed to Haslar. The Naval day finishes at 4 p.m., except for those on duty. A pleasant change from living-in at Bart's, or any other N.H.S. hospital.

After three weeks at Haslar we spent a week learning about Atomic, Bacterial and Chemical warfare at H.M.S. *Phoenix*, one of the many shore establishments in the Ports-

mouth area. My general conclusions were that no-one knew much about Atom or Bacterial warfare, and that life would be very unpleasant at sea in another war, with the ships almost hermetically sealed. Still the chances of survival would probably be greater at sea than on land. Thermonuclear weapons (commonly known as H-bombs) are a most depressing subject, about which little is known, or passed on.

We then had a month of general duties; treating coughs, colds, sprains and cuts in the barracks. The field gun competition crew had just been formed, and its members appeared one after the other with wounds of varying severity acquired during practice. Towards the end of this month we received the appointments to our first ship. Those of us, like myself, who were going abroad, drew tropical kit and went on leave.

In these air-minded days most naval drafts to the Far East travel by air. I was lucky and went out by trooper. H.M. Transport *Empire Clyde* was built as the *Cameronia* in 1921 for the North Atlantic run. During the War, and for some years after, she was a troopship. She then had cabins fitted throughout and changed to carrying emigrants to Australia; now back to trooping, she is the only trooper to have no troop decks. Through the Red Sea to Aden, across the Indian Ocean to Colombo, and on to Singapore she was hot, not being built for the tropics. But hot or cold, it was a pleasant month's holiday with pay. The trip was brightened by acting as duty M.O. one day in five, by an epidemic of German measles and by the removal of an appendix at sea. The temperature around the patient was about 110° and one had to pour the ether on the mask in a steady stream. If it was allowed to fall drop by drop, the patient started to get up. All this at 2 a.m. on a Sunday morning.

There were on board a Lieutenant Commander, a Lieutenant, and two Surgeon Lieutenants, who in turn supervised the rum issue to their seven ratings, and attended the weekly payment. The Naval draft ran the ship's daily mileage sweepstake, which had an increased turnover compared with the previous voyages. These duties kept us occupied, but even so, the time was occasionally heavy on our hands.

The Royal Naval Base at Singapore is fifteen miles from the city. We were driven there in Naval utility vans, full of our lug-

gage, along the twisty road at a speed which made us certain that we would end in the ditch. The very deep road-side ditches, known as Monsoon ditches, fill almost to the brim when it rains. The island is many shades of green in the bright sun, and though the soil is mostly sand, the heavy rainfall never allowing it to become withered. The Naval Base, which covers a wide area, contains one village for the dockyard employees where the buildings are of concrete and fairly new; and another for the fire-services employees where the houses are of concrete, of wood, corrugated iron, and beaten-out petrol tins; houses for the Naval families; H.M. Malayan Ship *Malaya*, the barracks of the R.M.N., and H.M.S. *Terror*, the R.N. Barracks, both of which look very attractive with their white buildings surrounded by grass; and last, but not least, the Dockyard, which employs some ten thousand men.

I joined my ship, the cruiser H.M.S. *Newcastle*, and the man I relieved left the next day after a wonderful farewell party. I soon found out that the common diseases in the tropics, in the Navy, anyway, are those which are common in England. Skin diseases head the list with V.D. a close second. Within three days we were at sea bombarding the local terrorists—one shell every six minutes for hours on end. It was interesting to be in the turrets when the guns were firing, it was also much more quiet there than in the wardroom. We did this for three days, and by the end of it only the Gunnery Officer was sorry that we were leaving. Someone perforated a peptic ulcer on the last night of the bombardment, and we had to return to Singapore; but we soon came back to finish dropping our visiting cards on the terrorists.

This short trip was followed by a week in harbour, during which I did my first day as Medical Guard. At Singapore the Medical Guard is responsible for treating any injury or illness in the Naval Base after the end of the working day. The Navy has a hospital for the local employees, the Royal Naval Asian Hospital, that is run by two Surgeon Lieutenants (shortly to be three). Here in the medical ward I have seen cases of tabes dorsalis, congestive heart failure, lobar pneumonia, dysentery, malaria, coronary thrombosis, and a jaundiced chinaman; and on the surgical side: a perforated ulcer,

appendicitis, hand infections, and leg and foot infections, to say nothing of an abortion and an infant with a meningomyelocoele. Patients requiring operation have to make a fifteen mile journey to the Singapore General Hospital. In all, I have been on duty eight days and found that they provided very good revision. The snag is having to rely on an interpreter, and in having to use the vet's approach.

We went to sea for the exercises with the R.A.N. and the R.N.Z.N. that took place during June in the Java Sea. While at sea we had an epidemic fever, possibly malaria, which struck down thirty-five men on the first day; the next twelve days bringing the total number of cases to ninety. A tenth of the ship's company affected, not bad for a few mosquitoes! Having been kept busy with the epidemic, I was not surprised when fate produced a haematemesis in one of the Marine band. Luckily for both of us he did not bleed again.

The ship is also based on Hong Kong, the doorway to Red China, which is swarming with Chinese who do not seem to go to bed at all. Perhaps it is the large number of refugees who make the streets look nearly as busy as during the day. Double-decker green trains, single-deck red and silver buses, rickshaws, motorcars, and pedestrians, all jostle each other in the streets, with a slight advantage to the mechanically propelled. The thing that catches everyone's eye is the *Cheung Sam*, the tight-fitting dress worn by the Chinese women, which has a slit up each side (usually going three or four inches above the knee) so that they can walk. This is a very becoming dress for the Chinese figure, which is not blessed with big buttocks.

The island has many attractions for the sailor, mainly because the dockyard is in the middle of the city. On top of the Peak, one of the hills overlooking the city, is the Royal Naval Hospital. It was built after the first war as a memorial nursing home, acquired by the Navy in 1948, and is now a small but well equipped hospital. The only disadvantage to its unique position on the top of the hill at about 1,400 feet, with a picturesque view over the other islands to the sea, is that it is often in the clouds.

My other experiences since leaving Bart's are not connected with medicine or the Navy.

A VISIT TO HILL END AS A PATIENT

by E. M. BUNTON

HAVING been led like an unsuspecting lamb to the slaughter, I arrived at Hill End Hospital one bright autumn morning, little realizing that Fenestration would be such an anguish provoking ordeal. First, in order to assure me that there was more in it than met the eye (or ear), they tested and recorded practically everything, and asked innumerable questions many of which were seemingly irrelevant (How many pillows do you sleep on?)

I was slightly taken aback to discover that I should have to part company with the area of *coiffeur* immediately surrounding my left ear. This provided the amusement of a mild *conretemps* between Sister and the barber, with Sister batting on the side of the patient's vanity.

The Great Day of the operation dawned, and after I had been given the ceremonial Last Meal and Last Drink, my head and I were dressed respectively in a bandage and a crafty white winceyette nightshirt cut to the pattern (*sic*) of a choir boy's surplice. And of course the inevitable long white stockings. Just as I was getting beautifully drowsy I was lifted on to a trolley by a sort of Crazy Gang who struck me, in my bemused state, as being somehow incongruous in the ward.

. . . As I came out of the anaesthetic I became slowly aware of my blood pressure being checked terribly frequently, and of my asking Sister whether I'd 'been done.' I had. Gradually an increasing feeling of nausea had its way and I was sick. Having got my stomach sorted out I next made the shattering discovery that my leg was in some sort of a splint, and that my foot was becoming painful. 'God!' I thought, 'they got me mixed up—I've had the wrong operation.' But soon my ear started asserting itself, so I decided that if I had had the wrong operation they'd realized it in time and done my ear too. Happier, I relaxed again, feeling that all was probably well.

But of course it wasn't at all. My ear and my foot both became more and more painful; my head couldn't move itself on the pillow; and I felt incredibly seasick. As it

was now daylight I saw that a bottle was attached to my foot by a length of rubber tubing. This explained the sore-foot—there was a needle in it. But the contraption was soon removed, leaving me to concentrate on my earache and my seasickness. It was at this stage that I decided that Fenestration was a Fate Worse than Deafness. The earache became worse whenever I coughed, sneezed, blew my nose, chewed, used the bed-pan, or even just did nothing at all. The seasickness assumed Mid-Atlantic proportions, and there were times when I couldn't have cared if Hill End Hospital had gone down to the bottom with all hands lost. Anyway, I thought, I should be going to meet my Maker in this pure-looking surplice.

During the next few days life seemed to be a giddy round of blanket baths, codeine, bed-pans, dramamine, penicillin injections, earache and seasickness. And food—for which I could raise no enthusiasm at all. Everyone was being very sweet and kind, and the customer was *almost* always right.

It was round about this time that it occurred to me to wonder who had done the operation. I had but once seen the surgeon at Out-Patients when he was heavily disguised with a green gown and hat, a mask and a mirror. Had he done the fenestration? I had no means of knowing so it became a vague sort of worry in my life.

Towards the end of the first week I was beginning to feel very much better. Then the Day of the First Repack reared its ugly head and once more we went through the ceremony—the clean surplice, the Crazy Gang, the lot! . . . And when I came round I felt almost as miserable as I had after the fenestration. What's more I still hadn't set eyes on the surgeon. For all I knew it might have been Jimmy Edwards.

With my ear packed and padded and bandaged I heard less than I had before I came in. And so it was that I formulated my first theory on fenestration:—They keep you with your ear packed for three weeks or so, then when they remove the packing and say, 'There, now you can hear better, can't

you?"—you can! The other theory was the psychological slant—Being in hospital was such a miserable business that you didn't really care whether your hearing had improved as long as they let you out!

On the tenth day I was allowed up and told to re-educate my balance—a task which proved more difficult than I had anticipated. At first I walked as though I had half a bottle of gin inside me, but gradually managed to convince myself and Sister that I could walk along a (fairly) straight line. All was well as long as I didn't try turning round sharply or bending over sideways.

Soon the day arrived when I was to see the by now mythical surgeon. He appeared, bearing a strong resemblance to the Green-Shrouded-One at Out-Patients (and mercifully none at all to Jimmy Edwards). After he'd unpacked my ear he walked round the room muttering numbers at me, all of which I heard. We all felt this was an encouraging

sign, and the following day I waved a tearless farewell to Hill End and returned home feeling weaker than the proverbial kitten.

I had felt that if the fenestration were not successful my disappointment would vary inversely with my optimism before-hand. So I avoided optimism. But eventually I realized that my hearing had definitely improved to a considerable extent, and that I could now hear what most people said, and listen to my gramophone records with the volume control turned lower. I realized too that my next door neighbour was an inveterate banger of doors, that my refrigerator rattled, that my washing machine could have wakened the dead if it had put its mind to it, and that gas cookers were fearfully buzzing devices.

Sometimes I am haunted with the fear that my new window will close up. But if that fear is not realized within the allotted time I will happily return to the E.N.T. ward to have my right ear fixed.

NATURAL HISTORY SOCIETY

On December 9, the Natural History Society held their Annual General Meeting in the Physiology Department Library.

The official business, in the shape of the secretarial report and the election of officers for 1955-56, was quickly disposed of, and there then ensued a presentation of various items of interest by members.

Dr. Vince showed a superb collection of tropical plants and rarer native species, including some most interesting insectivorous plants which derive their raw materials from flies and insects as well as from the soil.

Mr. B. M. J. McGrath introduced the members to a sadly neglected group of animals, the land snails. 'Turn the grass roots aside and find *Cyclostoma Elegans*, the lone ambassador of an abounding continental genus,' he said, as he showed members that dignified specimen. 'Clamber up Box Hill and meet *Helix Pomatia*, England's largest snail.' He went on to tell how he poked into the crumbling mortar of a sun-dried wall to bring to view a dozen twisted shapes of all sizes, and how he burst through tangled weeds, willy-nilly, crushing a vast colony of *Helix Cantiana*, and

scooped from the floating scum of a slow rivulet the flattened catherine-wheel, *Planorbis Carinatus*. Members were amazed. He added another example to his collection in dramatic fashion, when Dr. Vince, on opening the closed trap of a Venus Fly-trap discovered a species of *Hyalina* that had been caught there.

Mr. M. D. Constable gave a short talk on 'The Colour of Butterflies', illustrated by some specimens from his collection. He spoke of the function of colour as a means of protection, and its role in sexual differentiation, and then continued to describe some of the different ways in which the colours themselves are formed.

Still in the field of Entomology, Mr. E. R. Nye showed a miscellaneous collection of insects. These included Preying Mantids, an Elephant Hawk and one of its parasites; a fly which is supposed to be the 'bee' that Solomon saw swarming round his lion; and another fly, very tiny, which is parasitic on spiders (an eye for an eye), and a number of predatory 'robber flies'.

The meeting ended with an informal discussion of the exhibits.

THE LIFE OF SAINT BARTHOLOMEW

PART III: HIS DEATH

by J. B. DAWSON

THERE are some interesting observations to pursue as to his actual death, because once again many accounts are given. The blessed Dorotheus states he was crucified head down, Saint Theodorus states he was flayed, while Pierre de Natalibus adds that he was beheaded on the second day, so that I think almost any combination of flaying, whipping, and crucifixion in the orthodox manner or upside down, followed by beheading, is possible.

Let us consider each of these in turn. It has been very difficult to discover the method of flaying of those times, but two pictures, one of which is reproduced here, in Tuscan art are available, and I think they illustrate a possible method. They both seem to commence the operation at the extremities, a fact which is ably supported by Von Muralt's description in that 'the skin can easily be removed from the arms, legs and abdomen, but with difficulty from the palmar surfaces and soles of the feet, the forehead and the face, because there it is attached to the fleshy "leather" skin by its fibres and filaments.' It is notable that flaying with crucifixion was common in Egypt and Persia at that time according to Plutarch and Arrian, and flaying is generally accepted as a constant feature of Bartholomew's death.

A rather gruesome addition to the flaying of Bartholomew is reported by Abbé Barraud in his report of a legend which states, that Bartholomew, after he was flayed, bearing the marks of the knife on his flesh, seized his skin from his torturers, put it on the end of a stick and ran through the streets of Albanopolis, to the astonishment of the onlookers, who became frozen with horror at such a terrible sight.

Crucifixion, on the other hand, was, I am led to believe, very different from that depicted in the fourteen stations of the cross. In the first place, crucifixion was reserved for slaves and criminals of the lowest grade, at least this was its extent under Roman law. It consisted of tying a man to an upright

stake with his arms in an extended position of some 65° to the vertical, so that his chest was in full inspiration, while his feet rested on a small platform. In order to breathe the victim had to push up on his feet to allow his chest some measure of expiration in order to breathe in further air. This



He is flayed.

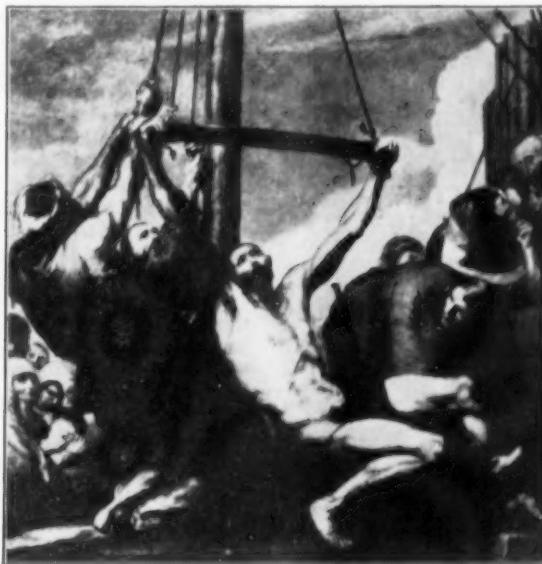
would mean that this ghastly agony under the burning sun, and torment by flies, might go on for days before complete exhaustion and dehydration brought release through heart failure. Crucifixion head down reported by Assemann in his *Martyrdom of Bartholomew*, the introduction of a mobile cross-piece as is seen in the Ribera picture, to the full development of the Tau cross, are

variations of this most unpleasant method of killing.

The next phase is common to all saints, and consists of the world-wide distribution of portions of their body to various centres of religious pilgrimage. In the case of Bartholomew, many great churches lay claim to relics of this great Saint, and the story begins roughly in this manner. Some report that Astyages took the body of Bartholomew off the cross and had it bound in lead and thrown into the sea, to prevent

haps Bartholomew borrowed from all the surrounding countries for his final manner of death.

It is reported that the body encased in a coffin of lead floated with those of four other martyrs to Lipari, an island off Sicily, in the Stromboli group, on which were, according to the ancient Greeks, the forges of Vulcan. These forges took the form of a mountain which caused much grevious harm to the island, so the spirit of Bartholomew removed it some seven miles out to sea. The local



*The Martyrdom of St. Bartholomew
Painted by Josepe Ribera (1589-1652).*

the Christians obtaining it and honouring it as would be their wish. Others state that Polimius, who was now bishop of Armenia, saw that the flayed body was buried with great honour in Albanopolis, a town in Upper Armenia which has since been destroyed. His tomb became the focus of many miracles and Gregory of Tours tells us that when a pagan revival occurred in this region with Christian persecution at its height, the reliquary was taken and hurled into the sea with the words 'Ye shall no longer deceive the people.' It is interesting to note, in passing, that strangling with hurling of the body into the sea was a method of Turkish capital punishment in this period. So per-

Christians had been warned of the impending arrival of Bartholomew's remains in a revelation, and they received them with great devotion and built a church for a further tomb. Siegeburt, in his chronicle for 831 A.D., states that when the Saracens later seized the island the priceless sepulchre was desecrated and the bones scattered.

Bartholomew then appeared to a monk saying, 'Rise up, go, and gather together my bones that be departed,' to which the monk replied 'By what reason shall I gather together thy bones, and what honour ought we to do to them when thou sufferest us to be destroyed?' 'Our Lord hath spared this people here a long while by my merits, but

for their sins that they have sinned which cry vengeance unto heaven I cannot get pardon nor forgiveness,' replied Bartholomew. 'How shall I, among so many bones, find thine?' continued the monk. Bartholomew commanded: 'Thou shalt gather them by night and them that thou shalt find shining thou shalt take up.' The monk did so and took a ship to Benevento in Apulia, which is some 40 miles North East of Naples and some 140 miles South East of Rome. Not long after Emperor Frederick destroyed Benevento, and in particular ordered the destruction of all the churches. Bartholomew, clad in 'all white shining' was seen then in counsel with the other saints, whose churches had been in the city, as to how Frederick should be treated. 'He should go to the judgement of God for to answer thereupon; and anon the Emperor died an evil death.' About the year 883 A.D. Emperor Otho (Ortho III) asked for the bones of the saint so that he could have them prepared in Rome for future translation to Germany. Thus the bones of Bartholomew are believed to have finally arrived in Rome, where they were placed in a church on the 'Isola Tiberina,' a small island between the Ponte Garibaldi and the Ponte Emilio. The remains stayed there, as Otho died, and the Church, which was then founded, was sited upon the remains of an old temple to Aesculapius, in the Jewish quarter of the city. A position very close to the site of the martyrdom of St. Paul and St. Peter, and in a well-known locality of endemic malaria. Several small points which join up with St. Bartholomew and our Hospital, as will be seen later.

Other Armenian writers relate how Bartholomew's body was buried at Albano-polis, but later the relics passed to Nephergard from which place they were taken by Emperor Anastasius to Darus, in Mesopotamia. This was a city he had built in 507 A.D. and in 508 A.D. he presented the relics to the city as a gift. From here, according to St. Gregory, who was writing about this time, they were brought to Lipari, where once again, after a Saracen invasion, they found their way to Benevento, and in 983 A.D. were once again translated to Rome by Otho III and installed in the Church of Bartholomew about 1000 A.D.

Still further reports state that when Otho III's intention to remove Bartholomew's body to Germany was realized, he was given

the body of St. Paulinus of Nola, and so that of Bartholomew, according to this report, did not reach Rome until much later. Now I believe both Saints lie in the church of St. Bartholomew in Rome, but in the interim period both Benevento and Rome distributed relics of assured authenticity.

The porphyry monument which contained Bartholomew's relics under the high altar was uncovered when the Tiber flooded in 1157 A.D. and damaged the church. Since that time the devotion to Saint Bartholomew as a saint has grown, and his church has been much restored, enlarged and altered, and every year, during the octave of his feast, a large number of people come to honour the relics of such a great defender of the Testament.

The most notable of these relics from our point of view is that brought by the Bishop of Benevento when he visited England, in the reign of Edward the Confessor and his Queen, Cnut, to raise a fund for famine relief in Apulia. He brought with him an arm of the Saint which was placed in Canterbury, sometime between 1020 and 1035 A.D. upon donation to the fund of much silver by the Queen. This relic became eponymous for many religious chapels and hospitals which were built in the immediate subsequent period.

To provide evidence of the 'relic muddle,' as one might call it, associated with Bartholomew, the following may give some idea:

1. In 1238, a head went to the Cathedral of St. Bartholomew in Frankfurt.
2. Other heads exist at Toulouse, Naples, and Riechenau.
3. A crown of the head also resides at Prague.
4. Benevento claims the genuine bones with the support of Bulls from Urban V, Leo IX, Stephen IX, Bunda XII, Clement VI, Boniface IX.
5. Rome makes similar counter-claims to No. 4.
6. Rio Torto also claims a bit of his flayed skin.

This is just another example of the confusion that surrounds this obviously very great and grossly neglected saint, and I should like to leave you with a relevant, if flippant, jingle, to describe the overall situation of our knowledge of Bartholomew, in the hope of prompting someone else to follow up these few threads to greater ends:

'Of thee great saint we know but little,
And what we do is mostly title.'

THE GENERAL PRACTITIONER AND HIS PATIENT

ON March 14, Dr. G. F. Abercrombie of Hampstead gave the latest of the series of lectures on General Practice to final-year students.

He spoke, in the main, about the clinical problems of practice, with special reference to the personal relationship between doctor and patient, but suggested, in preface, that all who practise medicine should do some research, and that the keeping of a 'Nosological Return,' recording conditions seen each day under disease headings, would provide a stimulus and indicate a likely subject for serious study. Having chosen the subject, 'get an expert to vet the scheme you have in mind and start on a sound basis.' His main theme he introduced with a case history, from the daily press, of acute appendicitis in a child, fatally mishandled by parents, house officer and practitioner, with a sequel in court. A brief sketch followed of what should have been done by all concerned.

'Go and see your patient in hospital, for the comfort of friends and relations, for your own instruction and to ensure that the hospital gives the best it has to give to one who is still your patient. Never forget that when she is admitted to hospital she leaves outside her only real medical friend and adviser.'

'Some say general practice is 90% trivialities. It depends what you are interested in. If only in tumours, hernias, leucocytes or spirochaetes you miss the point. Actually it is concerned with men, women and children; if they interest you it is fascinating.'

'Understand and remember that you give advice not orders; but your advice should, whenever possible, be based on correct diagnosis. So learn to examine your patient and take every opportunity to study the normal range of variation. As diagnostician the general practitioner has three advantages: he can see the patient *early, often*—in the N.H.S. as often as he chooses without cost to the patient—and *at home*. These are real aids, but earliness may bring its own difficulties. Revealing signs are often delayed for several days at least, while

the patient presses for a diagnosis.' The pain of herpes zoster, preceding the eruption, is a familiar example and Dr. Abercrombie described a case of thoracic aneurysm, whose sole symptom for many months was a persistent left shoulder-pain, and whose true nature much investigation and expert examination long failed to reveal. Moral:—'Never lose sight of your patient until diagnosis is established, and resist the temptation to label any patient "neurotic" without the very weightiest reasons. An interim, working diagnosis, e.g., "acute abdomen" is often both unavoidable and sufficient. Take the decision "belly to be opened" early, stick to it and act on it. Don't procrastinate because the precise lesion remains in doubt. Always ask yourself "Is it safe to leave this patient here tonight?" No-one should be allowed to die of acute or obscure disease without the benefit of a second opinion.'

'What should be done about the patient who declines to accept your advice? To retire from the case may be logical but is seldom the best or kindest thing to do. Remember you are *only* an adviser and it happens, now and again, that the advice you give, though logical and well-meant, is not, in fact, good. So keep in touch and await the natural course of events or practise some innocent guile.'

'Doctor is Latin for teacher and your second great function is to teach the general public the medical facts of life, as and when appropriate—early signs of cancer, incubation periods, simple nursing, first aid and so-on. A mother of an infant with a hernia, instructed by her doctor concerning signs of strangulation, took the right action when the thing happened during her doctor's holiday. Primigravidae, instructed concerning labour, amply repay by their intelligent co-operation the time and thought expended.'

'How much should one tell the patient? "Everything you know to be true." Very often that isn't very much, particularly as to prognosis, but I am convinced that the patient, if well enough to understand, and certainly his relative if he is not, is entitled

to be told as much as you know to be true. After all, the decision rests with him and your duty is to give him all the facts you can to enable him to reach a wise decision. It is important but exceedingly difficult to discover malignant disease early. Never accept a previous diagnosis when you take over a patient. Search for yourself and, if necessary, repeat the search.'

A fellow practitioner, being also a Perpetual Student of the Hospital, listened to this lecture, found it excellent, whether as entertainment or instruction, and wished it were being heard not only by *all* final-year students, whatever their plans and hopes, but also by housemen and registrars, for it threw the light on the practice of medicine without the walls, and on the relationship, which should be so much more intimate and reciprocal than it is, between hospital and general practitioner.

The next lecture in this series will be given by Dr. Keith Hodgkin, of Redcar, Yorkshire, at 12.0 noon on Wednesday, June 20.

HOSPITAL APPOINTMENTS

The undermentioned appointments to the medical staff take effect from the dates mentioned:—

Gynaecology & Obstetrics

Registrar: P. F. C. Jackson succeeds Gourlay
14.5.56.

Diagnostic Radiology

Senior Registrar (Chief Assistant): B. C. Hale,
21.5.56.

Senior House Officer: Miss M. E. Sidaway,
1.6.56.

House Officer: J. A. P. Darvell, succeeds
Berwick, 1.5.56.

Dental Department

Casualty House Surgeon: C. N. Hudson, 1.5.56.

Department of Pathology

Senior House Officer: J. A. Parrish, 18.6.56.

EXAMINATION RESULTS AND AWARDS

CONJOINT BOARD

Final Examination, April 1956

PATHOLOGY

Butler, A. C.	Morgan, D. R.
Deering, R. B.	Jewell, G. J.
Jewell, W. H. M.	Jones, P. M.
Dawson, J. B.	Parker, J. D. J.
	Roberts, I.

MEDICINE

Arthur, J. K.	Bloomer, A. C. S.
Goodliffe, A. D. R.	Kielty, M. G.
Lloyd, D. B.	Roberts, I.

SURGERY

Arthur, J. K.	Ashbee, C. R. N.
Jewell, G. J.	Jones, P. M.
Kielty, M. G.	Millard, F. J. C.
Murphy, J. K.	Winstock, D.

MIDWIFERY

Bloomer, A. C. S.	Goodliffe, A. D. R.
Millard, F. J. C.	Winstock, D.

The following students have completed the examination for the Diplomas M.R.C.S., L.R.C.P.
Jones, P. M. Bloomer, A. C. S.
Millard, F. J. C. Jewell, G. J.
Winstock, D. Kielty, M. G.
Goodliffe, A. D. R.

UNIVERSITY OF LONDON

Special Second Examination for Medical Degrees

MARCH 1956

Passed

Ballantine, B. N.	Beardwell, C. G.
Besser, G. M.	Birt, A. M.
Bonner-Morgan, R. P.	Brookes, B. M.
Chambers, R. J.	Chapman, J.
Collier, B. R.	Davies, D. G.
Dobson, J. L. C.	Dymond, G. S.
Hayle, T. H.	Hill, B. D. G.
Johnson, T. O.	Noble, M. I. M.
Owens, J.	Patterson, M. J. L.
Sime, M. O.	Stubbings, R.
Sugden, K. J.	Thompson, A. J.
Tyrrell, M. J.	Warrander, A.
Willis, G. T.	Woolmore, M. J. F.
	Wright, D. S.

* * *

Bentley Prize, 1956

Awarded to: V. T. D. H. Major

Wix Prize, 1956

Awarded to: L. J. Chalstrey

RECENT PAPERS BY BART'S MEN

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*Reprint received and herewith acknowledged.

SPORTS NEWS

RUGBY

The following have been awarded colours for the season 1955-56.

C. J. Carr, G. Halls, D. B. Lloyd, J. Laurent, H. Thomas, and M. Whitehouse.

Colours have been re-awarded to the following.

B. W. D. Badley, D. W. Downham, C. A. C. Charlton, E. F. D. Gawne, D. A. Lammiman, J. Neely, R. R. Davies, K. E. A. Norbury, J. C. Mackenzie, B. Loftis, D. W. Roche, J. S. T. Tallack, and R. M. Phillips.

RUGBY CLUB RECORD

Season 1955-56

Played 27; Won 11; Draw 1; Lost 15

Points for: 183 Points against: 260

Sept. 21	Berkshire Wanderers	Away	Won	6-3
" 24	Stroud	Home	Lost	0-18
Oct. 1	Trojans	Away	Won	8-3
" 8	Woodford	Home	Won	16-8
" 15	R.M.A. Sandhurst	Away	Lost	6-17
" 19	Cambridge LX Club	Away	Lost	3-6
" 22	Old Whitgiftians	Away	Won	12-3
" 29	U.S. Chatham	Away	Lost	3-6
Nov. 5	Penzance & Newlyn	Away	Lost	0-3
" 7	Devonport Services	Away	Won	5-3
" 9	Paignton	Away	Drawn	9-9
" 12	Rugby	Home	Lost	11-24
" 19	Old Alleynians	Away	Won	13-6
" 26	Metropolitan Police	Away	Lost	5-8
Dec. 3	Esher	Away	Lost	9-14
" 10	Saracens	Home	Won	5-0
" 17	Old Cranleighans	Home	Won	6-3
Jan. 7	Old Rutlishians	Away	Lost	3-9
" 14	Taunton	Away	Won	15-3
" 18	London University	Home	Won	8-0
" 21	Cheltenham	Away	Lost	14-15
" 28	Oxford U. Greyh'ds	Away	Won	14-6
Feb.	All games cancelled			
Mar. 2	St. Mary's H. (Cup)	Rich'd	Lost	0-17
" 3	Old Millbillians	Home	Lost	3-5
" 10	Loughborough Coll.	Home	Lost	3-6
" 17	Aldershot Services	Home	Lost	6-8
" 24	Harlequin Wanderers	Away	Lost	0-45

MIDDLESEX SEVEN-A-SIDES

As usual, Bart's entered two sides for this year's Middlesex Seven-a-side Competition. The preliminary rounds were held on April 21, at Beckenham. Here, the Bart's second team were eliminated in the First Round, but the senior team made triumphant and impressive progress, finally emerging winners of their section, thus qualifying for the final rounds at Twickenham the following week. During the day's play Bart's amassed a total of 56 points while conceding only 6, and disposed of the much favoured Streatham and Blackheath teams *en route*.

At Twickenham, on April 28, the Hospital were unlucky to be drawn against London Welsh, the

eventual winners of the Competition. They lost this game 16-3, M. J. A. Davies scoring the only Bart's try, the result of a very good combined movement. It was during the first half, when the Hospital team, obviously overawed by the occasion, failed to settle down, that London Welsh scored the majority of their points. In the second half they were able to show some of the skill which they undoubtedly possessed. But, apart from the one try, no gaps were found in the solid London Welsh defence.

Although defeated the team had the consolation of knowing that they had been beaten by the Champions of the Day.

Team: R. M. Philips; G. J. Halls, M. J. A. Davies; H. Thomas; E. F. D. Gawne, B. W. D. Badley, J. C. Mackenzie.

CRICKET

1st XI v. London House. Sunday, April 29th, 1956. Won by 74 runs.

The opening day of the season was true to form — very cold, and Bart's having won the toss elected to bat. Frankly, the London House bowling was poor, and runs were amassed fairly quickly thanks to Alan Whitworth. In contrast, the London House batting was sounder and the Bart's attack did well to dismiss them for so small a score.

St. Bartholomew's Hospital: 161 for 7 dec. (A. Whitworth 44).

London House: 88 (Whitworth 4 for 25).

1st XI v. U.C.S. Old Boys. Saturday, 5th May, 1956. Won by 30 runs.

A magnificent Summer day did not inspire the Bart's batting, who found themselves in the unfortunate position of 72 for 7, before Bloomer and Mitchell came together and hit the ball sensibly and firmly giving the score the respectability of three figures.

The Old Boys on paper were a strong batting side, and they seemed to have the game well in hand. However, the whole side rose to the occasion led by the magnificent bowling of Garrod who took 4 wickets for 17 runs. All the bowlers attacked well and some of the ground fielding was excellent. In fact, the whole performance was most creditable and we hope bodes well for the Cup match on the 17th May.

St. Bartholomew's Hospital: 110 (J. Stark 28). U.C.S. Old Boys: 80 (A. Garrod 4 for 17).

1st XI v. Putney Eccentrics. Sunday, May 6th, 1956. Won by 4 wickets.

A disappointing day in the field for Bart's in which only Nicholson's catch at cover stood out



The Bacterium at the Breakfast Table

"Eat up your nice flannel," the clothes-moth is credited with saying to her child, "or you won't get any mink."

Bacteria have no mothers. They merely split into two, and it would puzzle even a Freudian to discern a mother-child relationship between the halves. This method of reproduction, besides sparing them many complexes, enables them to eat whatever they like. Nature, however, is a universal mother, and one of the old school; she sees to it that they eat the right things, or else.

I need hardly remind you that the bacteria which cause disease are very fond of battening on the likes of you and me. And what is it, you may well ask, that they find so delicious?

Well, one of the things, which it seems we keep always on the menu, is known to biochemists by the insufferable name of . . .

If only we had space for the rest of this instructive medical essay, which appeared originally in The Times, you could read it here. What we have got, however, is a collection of these diverting articles from the same celebrated pen. Would you like a copy of "The Prosings of Podalirius"? Just drop us a card at the address below.

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against a background of rather dilatory ground fielding. Mackenzie and Rosborough bowled well but the slow bowlers suffered from the fielding.

Bart's lost their early batsmen inexplicably on a lovely wicket and it was left to Nicholson and Whitworth to take advantage of its placid nature. They batted extremely well and put on 99 runs together.

Although a few wickets fell after their departure the remaining runs were scored quickly and light-heartedly.

Putney Eccentrics: 182 (Mackenzie 3 for 18, Rosborough 3 for 25).

St. Bartholomew's Hospital: 186 for 6 (A. Whitworth 75, J. Nicholson 59).

2nd XI v. Royal Free. Saturday, May 5th, 1956. Lost by 6 wickets.

St. Bartholomew's Hospital: 63 (Jailer 15). Royal Free: 64 for 4.

RECORD REVIEWS

J. S. BACH St. Matthew Passion.

AGNES GIEBEL (Soprano) LORE FISCHER (Contralto) HELMUT KRETSCHMAR (Ten.) HORST GUNTER (Bass) with The Kantorei der Dreikönigskirche, Frankfurt, and The Collegium Musicum Orchestra, conducted by Kurt Thomas. Editions de L'Oiseau-lyre. OL 50113-6.

For those who prefer the more orthodox approach to the St. Matthew Passion this recording will have a greater appeal than the recent Nixa/Scherchen issue. It is straightforward and complete, and the artists' respect for this, the greatest example of religious music ever written, is clearly shown.

The success of a performance of this work depends largely on the soloists, and in this recording they all reach a very high standard. I particularly liked Agnes Geibel, whose singing is pure and expressive; unfortunately, Lore Fischer lacked tone on some of the longer phrases, and at times appeared to be forcing her voice.

The choir is excellent throughout, their singing being stylish with good attack.

On the whole this is a fine and well-balanced recording, and is thoroughly recommended.

FAURE: Requiem Op. 48.

Suzanne Danco (Soprano) and Gerard Souzay (Baritone), with L'Union Chorale de la Tour and L'Orchestre de la Suisse Romande conducted by Ernest Ansermet. Decca LXT 5158.

Fauré's Requiem is undoubtedly one of the most delightful works ever written; it has such deep religious feeling. This recording does justice to the music; it is clear, sound reproduction is faithful, and the chorus, soloists, organ and orchestra are finely balanced. Ansermet conducts with great feeling and coaxes some inspired playing from the orchestra. Both soloists give good performances, particularly Souzay, who sings with a devoutness

and fervour that is most moving; his singing of the *Hostias* is exquisite.

This recording can be recommended without reservation, it is one of the best I have heard for a

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CONCERTO NO. 26 IN D (K. 537), THE "CORONATION".

Friedrich Gulda with the New Symphony Orchestra of London conducted by Anthony Collins. Decca. LXT 5138.

CONCERTO NO. 27 IN B FLAT (K. 595).

SONATA NO. 11 IN A (K. 331).

Wilhelm Backhaus with the Vienna Philharmonic Orchestra conducted by Karl Bohm. Decca. LXT 5123.

After the nondescript previous recordings of Mozart's concertos, Decca must be congratulated on the fine performances of these three, the last Mozart composed. K. 503 is a lively and sometimes dramatic work, and deserves to be more widely known; K. 537 is on the whole superficial. In both Gulda's firm precision and controlled momentum are well integrated with the orchestra under Collins' virile direction.

K. 595, written shortly before Mozart's death, has no hint of melancholy. Backhaus excels, his sensitive phrasing and tone-colour is masterly in both the sonata and the concerto, and the Vienna Philharmonic does him ample justice.

Both these records are strongly recommended.

BOOK REVIEW

OUTLINE OF ORTHOPAEDICS by J. Crawford Adams. E. and S. Livingstone Ltd. pp. 411. 32s. 6d.

It is always difficult to cover a speciality in a simple and concise way, without either leaving large gaps or, as the Author states, 'resorting to the style of a synopsis'. Mr. Crawford Adams has on the whole succeeded in his aim to present an outline of orthopaedic surgery in 'the shortest compass consistent with accuracy', but his book remains an 'outline'.

The book falls into two parts, the first (Chapters 1 and 2) dealing with General Orthopaedics, and the remainder dealing with different regions in a little more detail. Perhaps this division into two parts could have been made a little more definite, as Chapter 2, 'General survey of Orthopaedic Disorders', is rather too long, having nearly a quarter of all the pages in the book. If the book was clearly divided into two parts, it might then have been possible to sub-divide Chapter 2 into two or three Chapters of 30-40 pages each, which would make systematic reading easier.

The general layout of each chapter in the second part of the book is very good, and particularly helpful is the method of starting each chapter with a discussion on the investigation and routine examination of the part, followed by a simple classi-

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fication, and concluded by a reminder of possible extrinsic causes of symptoms.

Perhaps the best features are some simple and clear diagrams, especially those illustrating pathological changes.

One or two minor criticisms can be raised on some details.

No mention is made about the general health of the child in the section on Rickets (p. 95), nor the pain at night so often complained of in Neck and Shoulder conditions, nor the rotational deformity of the vertebrae in scoliosis (p. 154).

In Tuberculosis of the Hip, the statement that 'the patient is usually a child of 2 to 5 years' (p. 303) is no longer true as it was. Many will not agree with the impression given in the discussion on treatment of osteo-arthritis of the hip (p. 308 and 309) that arthroplasty is to be preferred to the 'palliative operations', among which the Author includes Displacement Osteotomy. The association of metatarsalgia with Hallux Valgus deformity is not mentioned. More serious, perhaps, is the omission of any real description of the principals of splinting, or physiotherapy, the use of appliances or the operative treatment of paralytic disabilities of the foot.

This little book undoubtedly fulfills what it sets out to do: to provide a clear and concisely summarised account of orthopaedics for students taking qualifying examinations, physiotherapists, and orthopaedic nurses. For the student who is content with an outline the book can be strongly recommended.

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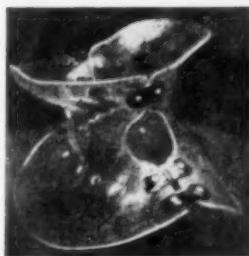
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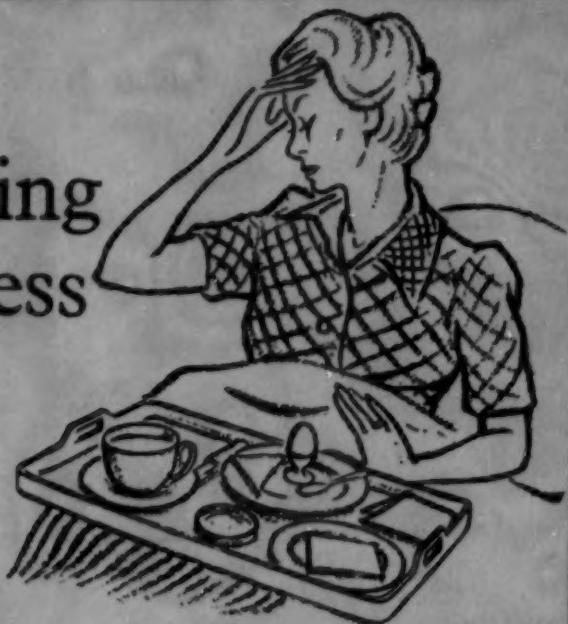
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